

## Neural Expression of Creativity in Real and Augmented Reality Environments

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**BOND  
UNIVERSITY**  
FACULTY OF SOCIETY & DESIGN

# AUSTRALIAN CONFERENCE ON PERSONALITY AND INDIVIDUAL DIFFERENCES

Bond University, 6-8 December 2018



Australian  
Conference on  
Personality and  
Individual  
Differences

The logo for the Australian Conference on Personality and Individual Differences (ACPID) features the acronym 'ACPID' in a stylized font where each letter is filled with a different color: 'A' is blue, 'C' is red, 'P' is green, 'I' is black, 'D' is red, and 'I' is black. The text 'Australian Conference on Personality and Individual Differences' is positioned to the right of the logo, with horizontal lines separating the words.



## **ACPID 2018 Conference | 6-8 December 2018**

Bond University's Faculty of Society & Design is pleased to host the 16th Australian Conference on Personality & Individual Differences (ACPID 2018) on the Gold Coast, Australia. We are delighted to welcome you to our Faculty and University and to help facilitate the growth in knowledge that comes from these events.

Bond University last hosted the ACPID conference in 2008. The theme for 2018, a decade later, is on 'Advances and Challenges in Personality and Individual Differences – Theories and Applications'. The main objective of the conference is to share the advances and challenges you have seen (or hope to see), as researchers, postgraduate students, practising professionals, educators, administrators and creative thinkers interested in increasing our understanding of personality and individual differences and their impacts. We trust this objective will be achieved.

We very much look forward to the interactions and networking opportunities at the Conference.

Welcome to this Conference from the organisers who thank the Faculty Executive and University for enabling the hosting of the Conference.

### **ACPID2018 Organising Committee**

**Professor Richard Hicks (Chair); Assistant Professor Aileen Pidgeon; Associate Professor Katarina Fritzon; and Associate Professor Peta Stapleton.**

**Faculty of Society & Design**

**Bond University**



**Location: Bond University, Building 6, Level 3**

**DAY 1: Friday December 7, 2018**

	Room 1 (Princeton: Level3)	Room 2 (Case Study 1- Level 3: 6-3-24)	Room 3 (Lecture Theatre 4- Level 3)
8:30 - 9:00	<b>Registration</b>		
9:00 - 9:20	Welcome and Opening		
9:20 - 10:20	Joint Keynote Address: Prof Lorelle Burton (USQ) AND Tanja Hirvonen (Flinders) <i>Personality, Individual Differences, and Indigenous Australians</i>		
10:25-10:45 10:45-11:05	Individual Papers- Cultures, Environment, and Personality Greg Dear- Aboriginal personality constructs	Individual Papers- Biological & Physiological Bases Influencing Behaviour Davina Robson- Personality & reproductive health Galiya Safina- Is bilingualism an advantage?	Symposium: The Dark Triad (DT) in Personal and Interpersonal Relations (Chair: Peter Jonason) Monica Koehn- The DT & intrasexual rivalry Peter O'Connor- The DT, desire for sexual attention, and parental protection actions
11:05 - 11:30	<b>Morning Tea (25 minutes: Princeton Room)</b>		
11:30-11:50 11:50-12:10 12:10-12:30		Individual Papers- continued Aimee Maxwell- Food addiction & reward sensitivity Drew Tatnell- Reward sensitivity, drinking & identity Frangos et al.- Neural expression in augmented reality	Symposium: Dark Triad (cont.) Lily Moor- Gay men, the dark tetrad, & more Charlotte Dryden-The DT & self-objectification Martin Obschonka-The 'dark side' of places
12:30 - 1:40	Light Banquet Lunch with Keynote Speaker- Assoc Prof Peta Stapleton (Bond University) - Princeton Room "Personality, Individual Differences, and Eating Behaviours: What we know from a recent obesity study"		
1:40 - 5:40	Conference - Afternoon and Evening Sessions		

<p>1:40-2:00 2:00-2:20 2:20-2:40 2:40-3:00 3:00-3:20</p>	<p><b>Individual Papers- Theory</b> Individual Paper: Chris Jackson- Leader survivors Boris Bizumic: Ethnocentrism Chris Jackson- Personality Meta-theories Damian Birney- Deconstructing intelligence</p>	<p><b>Symposium: Personality and Moral Emotion 5</b> Luke Smillie- "Personality &amp; moral judgement" Erin Lawn- "Enlightened compassion" Kun Zhao- "Personality &amp; ideological correlates" Brodie Dakin- "Meaning motivates pro-sociality" Rob Rebele- "Selfless motivation does not help..."</p>	<p><b>Individual Papers- Sport, Well-being</b> Emily Ortega- Health, self-regulation, &amp; sport Marie Caltabiano- Perceptions, athletes, &amp; doping ** Political values and athletes Becky Black*- Sensory processing &amp; flourishing Jonathan Bartholomaeus- Measuring wellbeing</p>
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**3:20 - 3:50 Afternoon Tea (30 minutes)**

<p>3:50-4:10 4.10-4.30 4.30-4.50 4.50-5.10 5.10-5.30 5-30-5.45</p>	<p><b>Individual Papers- On narcissism, mobile phones, texting, and internet trolls 5</b> Evita March- "U Mad Bro? ... trolling" Natalie Sest – "Online emotional manipulation ..." Kate Derry-1- "Core features of narcissism..." Kate Derry-2- "Distinguishing narcissism in childhood" Mack Zhou- "Maverickism, narcissism, &amp; networking"</p>	<p><b>Individual Papers-</b> Tim Bainbridge- Where does this scale fit? Marita Cooper- Towards a substance abuse scale Richard Hicks- Correlates of factors of the Apollo Profile  All posters to be positioned in Princeton for evening session</p>	<p><b>MINI-WORKSHOP 4.10 to 5.10pm</b> Meta-Analysis research made easy  "Systematic Review &amp; Meta-analysis: automation tools to help your review". Alexandra Bannach-Brown &amp; Justin Clark</p>
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**5:45 - 8:00 Conference Party: Nibbles, Posters and Student Honours: with Keynote Speaker - Assistant Prof Aileen Pidgeon (Bond)- "A Call to Psychologists: Addressing mental health needs using digital mental health applications" (Princeton Room)**

<p>6:15 - 7:00</p>	<p><b>Keynote Call to Action</b></p>		
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<p>7:00 - 8:00</p>	<p>Poster discussions (cont.), nibbles, networking. Best student oral presentation of the day may be declared (if all have completed) 7.30pm. Best poster award to be announced tonight or Saturday afternoon after today's and Saturday's presentations.</p>		
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## DAY 2: Saturday December 8, 2018

	Room 1 (Princeton: Level3)	Room 2 (Case Study 1- Level 3: 6-3-24)	Room 3 (Lecture Theatre 4)
	Symposium: EI & Emotional Regulation A	Individual Papers: Student Pressures	Symposium: Core Self-Evaluations: Impacts (Chair: Elliroma Gardiner)
9:00-9:20 9:20-9:40 9:40-10.00 10:00-10:20	Carolyn MacCann- Developing the ROE scales Indako Clarke- Regulating others' emotions Sarah Walker- Performance anxiety in opera singers Matt Geiger: Regulating the pained face	Natalie Loxton- Goal-drive, freezing and psychology students Daisy Vanstone- Test anxiety & perfectionism in students Miles Bore, Megan Cook- Authoritarianism and prejudice towards minorities (in a student sample) Caitlin Rodaughin- Indigenous students in education	Elli Gardiner- Defining core-self-evaluation theory Trent Henderson- Measuring core self-evaluations Matt Sampson- Core Self Evaluations and career satisfaction Nikki Stevens- CSE, self-monitoring, and income
10:20 - 10:50	Morning Tea (25 minutes: Princeton Room)		
10:50-11:10 11:10-11:30 11:35-11:55	Symposium: EI & Emotional Regulation- B Mahreen Khan- EI & work experience Hannah Kunst- EI, appraisal, coping, & stress	Individual Papers: Medical student selection- personality and emotional attributes Don Munro 1- 'Selecting Newcastle's med students' Don Munro 2- 'UK medical student selection' Kirsty Forrest- 'Selecting medical students at Bond'	Individual Papers: Suzanne Czech- Stability of Psychopathic Traits Jordan Moss- Psych correlates of political values Didi Winter- Empathy, Exposure and Myths
1:00 - 1:50	Lunch (50 minutes: Princeton Room) with Posters B		
1:50-2:10 2:10-2:30 2:30-2:50 2:50-3:10	Individual Papers: Stress, Wellbeing and Work Naomi Ashton- Occupational socialisation Shyan Low- Stress and wellbeing in caregivers Alan Patching- Stress and organisational culture in the construction Industry Lucia Do- Life-scripts, meaning & wellbeing	Individual Papers: Ageing Daniel Simons- Predicting resilience in ageing Mark Bahr- Bereavement & cognitive decline Clancy- Span, visual & auditory processing in age related decline Tai-Jun Lee & Irini Giannopulu- Augmented reality	
3:10 - 3:50	Annual General Meeting		
3:50 - 4:15	Afternoon Refreshments + Close		

# Workshop #1

Introduction to Hypnosis – Workshop presenter: Prof Alan Patching (see CV-BIO following)

The use of hypnosis as an adjunct to CBT and other therapies in assisting with behaviour change and stress or sleep related problems

This workshop outlines therapeutic principles underlying hypnosis as an adjunct for selfhelp and in therapies assisting in behaviour change and stress management. The debate concerning effectiveness of clinical hypnosis is long from over, with some protagonists not even yet agreed on a definition of the term, or if they did, they continue to argue that what can be achieved 'under hypnosis' can be achieved by a simple redirection of conscious attention without hypnosis. Our presenter would argue that the argument against in this case is in fact more an expression of misunderstanding what hypnosis is, and that the direction of attention elsewhere in fact, created an hypnotic effect.

Some argue that hypnosis is nothing more than placebo effect, which could be regarded as something of a compliment, given the well-documented power of that effect in several areas of medicine. However, this workshop is not about debating definitions and outcomes, it is about explaining important aspects of hypnosis (especially contra-indications to its use) describing the stages of the process, providing several case studies of its effectiveness (some of them published) and providing delegates the opportunity to experience hypnosis and to use, under supervision, some basic hypnosis techniques.

Workshop leader, Alan Patching, holds a Master's degree in Counselling and Psychotherapy Practice from the UK and is UKCP registered. He is accredited to teach clinical hypnotherapy in the USA, UK and Australia, and has conducted workshops in every state of Australia and several countries overseas. Depending on time and group interests, there might even be time to learn one or two rapid hypnosis induction techniques, which can be very useful in crisis situations, and for use in assisting for comfortable childbirth etc. This is an interactive, informative and fun session.

## Psychotherapy and Counselling CV – Professor Alan Patching

Alan Patching's early career was in the construction industry. During this time he studied a subject or two of psychology to better understand human behavior. Fate led Alan to meet American motivational and organisational psychologist and best-selling author, Dr. Denis Waitley. Alan went on to present at many international conferences with Dr. Waitley, and eventually he co-authored a book with him which was published by Reid Academic. That relationship kindled a passion in Alan for all things related to human behavior. Alan went on to earn several Diplomas and Advanced Diplomas in Australia and the UK (not the ones that take a month, the ones that take up to 1,800 hours face-to-face) and eventually earned a Master's degree in Counselling and Psychotherapy Practifrom Bath Spa University in the UK.

Alan developed a particular interest in clinical hypnotherapy as a tool to assist in CBT and other interventions. He completed the studies necessary to see him: Earn qualifications in hypnotherapy, as a practitioner and an accredited trainer, in Australia, the USA and the UK, become the first Australian to earn the European Certificate in Clinical Hypnotherapy, which requires 1,400 hours of face-to-face training, be given registered clinical membership of the United Kingdom Council of Psychotherapists, be granted Diplomate membership of the American Psychotherapy Association, earn Diplomate (invitation only) membership of the International Academy of Behavioural Medicine, Counseling and Psychotherapy, which requires a minimum of an audited 7,000 hours of clinical practice and be granted clinical registration with PACFA. Alan continues to conduct his practice from his clinic at Southport, but university commitments (he is an Associate Dean at Bond) limit clinic sessions to ten hours practice per week. Alan has been a key-note speaker at psychology related conferences in Australia, New Zealand and England.





## Workshop #2

### Tapping into Wellbeing: Emotional Freedom Techniques (aka Tapping) for Food Cravings and Weight Management: 10 years of Clinical Trials

Existing weight loss interventions recommend a combination of dietary restraint and physical exercise, which is unsuccessful in the long-term as they do not typically target the psychological determinants linked with overeating. This workshop will highlight 10 years of clinical trials on Emotional Freedom Techniques (EFT or “Tapping”) for food cravings and weight loss in overweight/obese adults, highlighting common personality differences that can be targeted. EFT is a brief psychophysiological intervention combining elements of exposure and cognitive therapy, and somatic stimulation. Ten years of Australian research has shown EFT to significantly reduce food cravings, the subjective power of food, anxiety, depression and somatic symptoms, increase restraint ability and decrease weight, and remain significant at 12-months. It has been shown to be comparable to Cognitive Behavioural Therapy for restraint and the subjective power of food, but superior for food cravings and anxiety. Delivered in an online format, EFT results in identical outcomes (12- months post treatment) as attending in person. New research has examined participants’ neural changes (fMRI scanning) before and after EFT treatment, and scans will be presented during the workshop. Attendees will learn the technique in full and apply to a common food craving (e.g. chocolate).

#### BIO

Associate Professor Peta Stapleton is a clinical/health psychologist at Bond University, Australia, and embraces evidence based practice and is passionate about new and innovative techniques. Peta is known for her food cravings research using Emotional Freedom Techniques (EFT) or ‘Tapping’, and has led a world first study investigating the impact of tapping in the brain through a fMRI study. Peta has been recognised with the Harvey Baker Research Award for meticulous research in energy psychology, the Global Weight Management Congress Industry Professional Award of Excellence, and the greatest contribution to the field of Energy Psychology. Most recently she was named the Gold Coast Business Woman Innovation and Technology winner for her application of EFT in the online space.



### Understanding and Using the Apollo Profile in Organisational Consulting

Organisations are concerned about the qualities and placement of their staff to enable effective returns. Individuals are also interested in their own development and career prospects. There are several (indeed many) questionnaires available that assess some of the qualities such as personality attributes that are related to success in organisations. Most are expensive and/or have limited user-friendliness. The Apollo Profile (developed by James Bowden and Richard Hicks) and part of the Apollonean Institute's series of products, is an online questionnaire based on leading principles of test development and analyses, and is available for consultant use after accreditation for its use. The current workshop is the first step in this accreditation process.

The workshop is led by the CEO of the Apollonean Institute, Jim Bowden, and by Apollo Profile co-developer and researcher, Richard Hicks, a Professor of Psychology at Bond University. The background to the development of the Apollo Profile will be given, along with opportunity to complete the questionnaire and then see the online reports that are deliverable from the system (developed by the Apollonean Institute). Examples of individual and organizational use will be given. More than 100,000 online questionnaires internationally have been completed in consultancy operations over some 20 years of operation – assisting organisations in staff selection and development at senior executive levels, in middle and lower levels of management, and in professional, commercial, sales and entry level profiling. The scales (34) were based on extensive initial search of the literature and on basic groundwork in discussions with employees, managers, CEOs and all levels of staff. Research evidence shows strong relationships of selected scales with the Big Five personality factors and sub-factors (as in the NEO-PI-R), the 16PF, Surveys of Personal and Interpersonal Values, and more.

The scale is used for benchmarking, future staff planning, staff development, and more (see the website). The workshop will demonstrate the capacities of the Apollo Profile and its potential for management and organisational consultants, and for career consultancy.

#### BIO

James Bowden has more than 50 years of business and entrepreneurial consulting and advisory experience behind him, visiting international firms with consulting advice on the use of the Apollo Profile. Leading international firms and national organisations (Food Chains, car manufacturers; Pharmacies, and commercial firms across the world) have been among the many clients. Jim uses his experiences to share understanding of the Apollo Profile.

Richard Hicks has an extensive background in test development and test review, in organizational, educational, and clinical psychology with more than 30 tests developed for governments and private sector interests around the world, assessing abilities, vocational interests, attitudes & personality attributes. The Apollo Profile was developed for national and international use to meet unique organisational consulting needs. Richard is Professor of Psychology at Bond University, and Fellow, Australian and British Psychological Societies.

## Opening Joint Keynote Address

### Prof Lorelle Burton (USQ) AND Tanja Hirvonen (Flinders) Personality, Individual Differences, and Indigenous Australians

We are pleased to be opening the conferences addresses with a JOINT KEYNOTE presentation by Professor Lorelle Burton and Tanja Hirvonen. The both have strong relevant backgrounds to be able to share what have been the contributions to now and what might be future directions, in 'Personality, individual differences, and indigenous Australians': one from a strong teaching and research background, the other from indigenous heritage, clinical psychology training, and life experience.

Professor Lorelle Burton, Professor of Psychology in the University of Southern Queensland, is an outstanding University teacher as well as academic, winning awards from the Australian Psychological Society for her remarkable achievements in university teaching and in contributions to teaching of psychology in high school (she has several published texts that many will be familiar with); she has made substantial research and teaching contribution to knowledge about indigenous Australians. Her collaborative relationships with indigenous Australians including Tanja, her co-presenter here and also recently in the National Australian Psychological Society conference in Sydney, have been strong highlights in her career.

Tanja Hirvonen is Lecturer in mental health in the Centre for Remote Health (Flinders University: Alice Springs). She is an Aboriginal Australian woman – through her mother who was born in Alice Springs. Tanja's father was from Finland. Tanja has extensive lived experience in regional communities and serves both her own community and national interests well through strong contributions through and to psychology: she is a registered clinical psychologist giving special attention to mental health issues; and she serves on several representative and advisory committees including of the Australian Indigenous Psychology Association, and the Rural, Remote and Regional Advisory Board that provides information to the Australian Psychological Society.

We are privileged to have both presenting this joint keynote address.



## **Individual Papers- Cultures, Environment, and Personality: 10.25 to 11.05**

### **Personality Constructs Reflected in Aboriginal Languages in the Pilbara: Findings from Conversations with Linguists**

**Greg Dear, Edith Cowan University, g.dear@ecu.edu.au**

As part of the planning stage for a proposed research project on Aboriginal Concepts of Personality, I met with linguists and board members of the Wangka Maya Pilbara Aboriginal Language Centre in South Hedland. These discussions cemented in my mind the urgent need for lexical studies and other research to explore how various Aboriginal language groups traditionally conceptualised, and communicated about, personality and individual differences. In this paper I outline the key findings from my discussions with linguists: (1) personality traits are communicated through elaborate grammatical structures that differ significantly from European use of adjectives; (2) the same phrase describing a trait or aspect of character will have different meanings depending on context, and one needs to have additional knowledge of the individual described and his or her social position in order to accurately understand the spoken phrase; (3) spiritual and other cultural constructs and beliefs are inseparable from some personality constructs; (4) it is likely that existing theories of personality will be reflected in Aboriginal language, but with surprising and challenging differences. In the presentation I will provide some fascinating examples of phrases and grammatical structures to illustrate the above four findings.

## **Individual Papers- Biological and Physiological bases influencing behaviour- 10.25 to 12.30**

### **A prospective cohort study of personality and reproductive health: The mediating role of lifestyle factors**

**Davina Robson & Mark Allan**

Global estimates indicate that 72.4 million couples (overall prevalence of about 9%) experience fertility problems (Boivin et al., 2007). Personality is predicted to relate to reproductive success since personality is a strong determinant of unhealthy living (cigarette smoking, alcohol intake, physical inactivity) that can reduce a couple's chances of conceiving (Hart, 2016). This study tested associations between the big five personality traits and self-reported fertility (number of children) and fecundity (reproductive difficulties). A representative sample of young Australian adults (n = 4501; age range ≈ 18–44 [women], 18–54 [men]) provided information on personality, fertility, fertility intentions, fecundity, and lifestyle factors (cigarette smoking, alcohol, and physical activity) in 2006 and again in 2016. After controlling for sociodemographic factors, higher levels of openness were associated with fewer children 10 years later in both sexes, and higher extraversion was associated with more children 10 years later in men. The association between fertility intentions and subsequent fertility was stronger among women scoring higher on conscientiousness, and women scoring higher on neuroticism were more likely to acquire medical or health difficulties in having children – an effect that was mediated by higher levels of cigarette smoking. The study provides initial evidence for an association between personality and the acquisition of difficulties in having children.

## **Re-examining the bilingual advantage: is sequential bilingualism associated with superior executive functioning in adulthood?**

**Galiya Safina & Nick Burns**

Bilingualism has been argued to confer certain cognitive advantages. For example, bilingual children have been consistently shown to outperform their monolingual counterparts on non-verbal tasks. Our study examined whether a second language acquired in adulthood (sequential bilingualism) confers a performance advantage, compared to monolinguals, in the tests of executive functioning (EF). Ninety-four English-speaking adults (aged 18-50) volunteered to perform five computerised psychological tests of EF (Simon Task, Stroop Test, Tower of London, Trail-Making and Wisconsin Card Sorting Test) measuring three distinct EFs (inhibition, switching and working memory). The sample included Russian-English bilinguals (n = 45) and native Australian-English speakers (n = 49). The only difference between these two groups was observed on their working memory performance: the bilinguals significantly outperformed the monolinguals in the Tower of London Task. No other differences between the groups reached statistical significance. The results offer only partial support to the bilingual advantage hypothesis, which is consistent with the growing literature bringing that hypothesis into question. Specifically, our findings show that the second language learned later in life is not associated with a wholesale improvement in EF, with its positive impact limited to working memory performance only. The implications of these findings are discussed, along with suggestions for future research.

## **Does Drinker Identity Mediate the Relationship Between Reward Sensitivity and Drinking?**

**Drew G. Tatnell, Natalie J. Loxton, Kathy Modecki, & Kyra Hamilton, Griffith University, Centre for Youth Substance Abuse Research, UQ**

Previous research indicates that university students engage in problematic levels of alcohol consumption, exposing this group to increased negative health outcomes. Although personality traits (e.g., reward sensitivity) and social-cognitive variables (e.g., implicit and explicit drinker identity) have been used to investigate drinking behaviour, few studies have attempted to link personality and multiple indices of drinker identity to hazardous drinking. The aim of this study was to investigate both implicit and explicit drinker identity as mediators of reward sensitivity and hazardous drinking. University students (N = 136) completed a drinker identity implicit association test, and a series of questionnaires examining reward sensitivity, explicit drinker identity, and hazardous drinking. Self-reported past 3-month drinking frequency, quantity, and associated problems. A mediation model revealed that reward sensitivity was found to be significantly associated with explicit, but not implicit, drinker identity. Explicit drinker identity mediated the reward sensitivity and hazardous drinking association. This research has implications for identity-based drinking interventions for students characterised by high reward sensitivity.

## **SYMPOSIUM: The Dark Triad- 10.25 to 12.30**

**Koehm, O'Connor, Moor, Dryden + Obschonka**

**Monica Koehn, WSU, koehn.monica@gmail.com**

### **Dark Triad traits and Intrasexual competition in Six world regions**

Intrasexual competition refers to rivalry and competition between members of the same sex for access to sexual and romantic partners. Individuals primary competitors are therefore members of the same sex. The link between intrasexual competition and the Dark Triad traits has remained unverified in both sexes. We examined the associations between the Dark Triad traits and intrasexual competition among 4,068 participants in six world regions. World-wide, all Dark Triad traits were related to intrasexual competition in both men and women. Tests of mediation found that sex had indirect associations with intrasexual competition through Machiavellianism and narcissism. In addition, we considered the moderating role of the Dark Triad traits. All three Dark Triad traits moderated the relationship between sex and intrasexual competition. The results are discussed at both the regional and global level.

**Peter O'Connor, QUT, [peter.oconnor@qut.edu.au](mailto:peter.oconnor@qut.edu.au)**

## **The Desire for Sexual Attention: Relationship with Dark Triad traits and Parental Protective Behaviors**

In this study we investigated individual differences in the desire for sexual attention. Although there is good evidence for the utility of this construct, little is known about the demographic, developmental and psychological predictors of it. Utilizing a representative sample of 200 Australians, we (1) developed a short measure of this construct and assessed its factor structure, (2) tested for age and sex differences, and (3) tested a set of hypotheses relating to predictors of this construct. We found that the desire for sexual attention peaked in young male and female adults. We found no overall sex differences in the desire for sexual attention; however predictors of this construct differed across sex. For males, the desire for sexual attention could be explained primarily by Narcissism and Psychopathy, with Machiavellianism explaining no unique variance. For females, Machiavellianism was the primary predictor, with Narcissism and Psychopathy playing only minor roles. Interestingly, results also indicated that maladaptive paternal bonding was associated with greater need for sexual attention in females but not males. Collectively, our analyses indicate that desire for sexual attention in males can largely be attributed to the desire for casual sex, whereas desire for sexual attention in females can be attributed to a more complex set of predictors.

**Lily Moor, ACU, [Lily.Moor@myacu.edu.au](mailto:Lily.Moor@myacu.edu.au)**

## **Exploring Explicit and Implicit Attitudes towards Gay Men using the Dark Tetrad and the Dual Process Model of Prejudice**

Attitudes towards gay men are typically negative and pervasive, and research has begun to focus on understanding the individual difference factors underlying prejudice towards this group. The Dual Process Motivational Model of Prejudice (DPM) is often used to understand such attitudes. It posits that prejudiced attitudes stem from the combination of two socio-political ideologies— right-wing authoritarianism (RWA) and social dominance orientation (SDO). In addition, research has begun exploring the moderating role of personality in using this theoretical framework to explain prejudice. This presentation presents data exploring the predictive potential of the dark tetrad model of personality (D4: narcissism, psychopathy, Machiavellianism, everyday sadism) and the DPM in explaining implicit and explicit attitudes towards gay men. Interesting patterns of findings were revealed, that diverge significantly based on the explicit (self-report) or implicit (associative) nature of the measure. Discussion will centre on the theoretical and empirical contributions to the ongoing debate surrounding the utility of the D4 in explaining antisocial cognitions. Evidence from the current study may be used to inform prejudice-relevant interventions through understanding of the individual-level factors that facilitate societal-level anti-gay attitudes.

**Charlotte Dryden, ACU, [Charlotte.Dryden@myacu.edu.au](mailto:Charlotte.Dryden@myacu.edu.au)**

## **Do Members of the Dark Triad Moderate the Relationship Between Self-Objectification and Body Image Concerns?**

Self-objectification occurs when women and girls view their own bodies as objects, existing for the pleasure of third parties. This internalisation of sexual objectification results in negative psychological outcomes, including an increased risk of poor body image, depression, and eating disorders. Recent research has revealed that narcissism moderates the pathway between self-objectification and body image concerns, but research has yet to explore the moderating role of the remaining members of the dark triad. This study presents the findings of a cross-sectional study of Australian women, in which we explored the potential for each dark triad traits to differently act as a risk or a protective factor in the relationship between self-objectification and body image concerns. Specifically, participants responded to explicit (self-report) and implicit (associative) measures of self-objectification, the Dark Triad, and of body shame and discrepancies in actual-ideal weight. The results demonstrate a complex pattern of results in which self-objectification differently interacts with these dark personality traits to predict body image concerns. Beyond the empirical and theoretical contributions of these findings are the practical implications - nuanced understandings of individual differences and their relationship to body image concerns will improve preventative and therapeutic interventions in this domain.

## **Individual Paper**

### **The “dark side” of places: On the regional distribution of Machiavelism**

**Götz, Friedrich (University of Cambridge, Ebert, Tobias (University of Mannheim and Obschonka, Martin (Queensland University of Technology**

Recent personality research indicates systematic regional variation in personality traits and profiles within countries (e.g., US, UK, Germany). This research, however, has focused mainly on the Big Five model so our knowledge on regional aspects of dark traits is very limited. Here we address this gap by studying the regional variation of Machiavelism. Using data from a new large-scale internet-based study, we provide the first psychological map of courage across the US (N = 390,341 respondents from 283 US metropolitan regions). We compare hotspots and cold spots across the US and also study local variation in Machiavelism within big cities such as New York City, Los Angeles, Chicago, Boston, and Washington. We further examine sample selection bias and the role of gender. We will also link regional and local Machiavelism scores to behavioral outcomes of regions, particularly work and job-related outcomes. Finally, we will take a look at the role of the local industry composition (e.g., finance industry, startup industry, and politics) to address a potential link between dominating local industries and the local culture and psychological climate. We will discuss potential implications of the new findings.

## **KEYNOTE SPEAKER - Associate Professor Peta Stapleton (Bond University)**

Associate Professor Peta Stapleton is an Australian clinical/health psychologist who embraces evidence-based practice and is passionate about new and innovative techniques in the food and weight areas. She is a world leader and researcher in the stress management tool Emotional Freedom Techniques, or Tapping, and a 5-times published author.

### **Address: Personality, Individual Differences, and Eating Behaviours: What we know from a recent obesity study**

Overweight and obesity presents one of the greatest global health problems, across both developed and developing nations. Behavioural and psychological factors have long since been studied in an effort to understand who is likely to maintain weight loss. This talk will present a behavioural and psychological profile of individuals who have lost at least 10% of their maximum body weight or more and maintained it for 12 months or longer. Our research has shown that the strongest predictor of whether or not a participant lost weight and maintained it or regained (over a year) is restrained eating. This indicated that participants who restricted their food intake were one times more likely to maintain their weight loss for 12 months or more than those who reported losing weight but regaining it within 12 months. Reasons why this is prominent will be discussed during the talk.

## **Individual Papers- Theory – 1:40 to 3:20pm (currently starting at 2pm)**

### **The group strength model of ethnocentrism: Testing the nomological network**

**Boris Bizumic (ANU)**

The concept of ethnocentrism was introduced by Gumpłowicz in the 1870s, popularised by Sumner in the 1900s, and first investigated psychometrically by Adorno and colleagues in the 1940s. Over time, it has become a fundamental concept in personality and social psychology. Nonetheless, the area of ethnocentrism has been affected by problems, mainly stemming from diverse conceptualisations and theoretical frameworks. This research programme works to reinvigorate the study of ethnocentrism by clarifying its structure, causes, and consequences. This paper presents the results of a series of studies using the recently developed Ethnocentrism Scale 1 and 2 in numerous samples (approximately 7,000 participants) from primarily Western, and mainly American and Australian, samples. Using factor analytic and correlational techniques, the paper investigates the relationships between the six dimensions of ethnocentrism (devotion, group cohesion, preference, superiority, purity, and exploitativeness), and their relationships with proposed causes and consequences. The findings indicate that ethnocentrism has multiple origins, such as personality, values, morality, ideology, and social factors, and consequences, such as prejudice, discrimination, and political attitudes. The paper argues that ethnocentrism has distal evolutionary causes, and stems from the need to strengthen one's own ethnic group at the expense of anything and anyone that can weaken it.

### **How leaders with a survivalist personality take advantage of corporate crises to achieve both positive and negative workplace outcomes**

**Chris J Jackson, George Shinkle, & Catherine Collins (UNSW)**

Previous research has highlighted that survivalists can be high in psychopathy, Machiavellianism and narcissism. This suggests some malevolence as well as high capacity for self-preservation. One group of people who can be characterised as survivors are leaders in the workplace. Using a cross-sectional online sample of 120 UK organisational leaders, we show that survivalists who articulate a vision to survive a crisis are both charismatic and innovative; whereas survivalists who “divide and conquer” to survive a crisis are both abusive supervisors and engage in anti-social behaviour. Results show that survivors in the workplace are excellent at planning for disasters and can be associated with both positive and negative workplace outcomes.

### **A multi-level super meta-theory of personality meta-theories: Why individual level behaviour is not always associated with reproductive success**

**Chris Jackson, Amirali Minbashian, & Christian Criado-Perez (UNSW)**

We propose a multi-level super meta-theory of personality in which the basis of a personality trait includes mental representations. Mental representations follow a density distribution in which they vary in value and distance from their underlying neuronal substrates. Mental representations, associated with personality, explain most consistent and inconsistent within person behavioral responses and between person differences in behavior. Using a three levels of analysis argument, we argue that the poorly explicated common theme underlying recent meta-theories of personality is that the level 3 purpose of neuronal substrates and mental representations is to facilitate reproductive success. At the level 1 within and level 2 between person levels, we advocate that mental representations facilitate positive emotionality and potentially subjective reproductive success (a mental representation of reproductive success). At level 1 and level 2, positive emotionality and potentially subjective reproductive success will not always be associated with reproductive success.



# **Modelling within-individual trajectories of learning and complexity: A method for deconstructing the constituents of intelligence**

**Damian P Birney (University of Sydney) & Jens F. Beckmann (Durham University)**

The historical perspective of intelligence is a decidedly between-subjects affair. This is reflected in the dominance of factor analysis as both a psychometric tool for validation and as the cornerstone of the theoretical conceptualisation of intelligence as a hierarchically structured set of human attributes. In spite of the significant gains made over the last 120 years in mapping out this hierarchy, it turns out that knowing what intelligence is and is not correlated with does not actually tell us much about the basis of intelligence. This has been known for some time, at least since Cronbach (1957). There have been a number of structural, paradigmatic, and technological obstacles to incorporating the necessary process-oriented, experimental, and intra-individual methods needed to redress this. We reflect on some of these. Drawing on theoretically anchored, within-individual complexity hypotheses, and experimental manipulations of a) cognitive psychology tasks (Study 1, N=142 students), b) intelligence tests (Study 2, N=252 managers), and c) dynamic micro-world simulations (Study 3, N=142 managers), we extend the conceptualisation of performance beyond the mere between-individual comparison of rank-ordered, total-test scores. Using linear-mixed effects regression, rather than factor analysis, we deconstruct the constituents of performance and recast them as within-individual trajectories of learning and complexity. The cognitive, personality, and conative aspects of these trajectories are investigated for insights they may offer for a broader understanding of the dynamics of cognition.

## **SYMPOSIUM 2: Personality predictors of moral emotion, cognition, action, and outcomes.**

**Presenters: Luke D. Smillie, Erin C. R. Lawn, Kun Zhao, Brodie C. Dakin, & Robert W. Rebele**  
**Symposium Abstract:**

How can personality psychology help describe and explain individual differences in moral emotion, cognition, and action? In this symposium, our speakers discuss a suite of traits (Smillie; Lawn; Zhao; Dakin) and characteristic adaptations (Rebele) that differentiate the highest from the lowest (i) proponents of moral principles (Smillie), (ii) performers of moral behaviours (Lawn; Zhao; Dakin), and (iii) facilitators of moral outcomes (Rebele). First, Smillie examines the distinction between deontological and consequentialist moral judgements, showing that the former are driven by Politeness (an aspect of Agreeableness) whereas the latter are driven by Intellect (an aspect of Openness/Intellect). Second, Lawn discusses the construct validity of a broad 'morally exceptional' trait situated between Compassion (the other aspect of Agreeableness) and Openness (the other aspect of Openness/Intellect). Third, Zhao describes how low social dominance orientation and low right wing authoritarianism provide unique pathways to socially inclusive behaviour. Fourth, Dakin demonstrates that individuals with a greater need for existential meaning are more motivated to engage in costly prosocial behaviour. Finally, Rebele shows how selfless motivation among teachers can undermine the impact of otherwise generally prosocial dispositions on students. Overall, the presenters demonstrate the benefit of applying a personality psychology lens to the study of morality.

### **Presentation 1- Title: Personality and moral judgement: Polite deontologists and intellectual consequentialists**

**Presenter: Luke D. Smillie, The University of Melbourne, Australia: lsmillie@unimelb.edu.au**  
**Authors: Luke D. Smillie, Melina Katic, & Simon M. Laham**

Moral judgements are evaluations of the rightness or wrongness of an action. A prominent 'Dual Process' account of moral judgement suggests that inclinations toward deontology (i.e., basing moral judgement on the inherent rightness of an action) are driven by emotional aversion to causing harm, whereas inclinations toward consequentialism (i.e., basing moral judgement on the instrumental effects of an action) are driven by deliberative reasoning. We evaluated this account in terms of associations between basic personality traits and inclinations toward deontology and consequentialism. Across two samples, comprising US residents (N = 562) and Australian students (N = 254), we found that the Politeness aspect of Agreeableness is a unique positive predictor of deontological inclinations, whereas the Intellect aspect of Openness/Intellect is a unique positive predictor of consequentialist inclinations. Given the lack of a clear association between deontological inclinations and traits describing emotional reactivity and harm aversion (e.g., the Compassion aspect of Agreeableness), our findings appear only partially consistent with the Dual Process account. Further, our discovery of a clear, consistent association between Politeness and deontological inclinations suggests that such moral judgements are driven by compliance with social norms.

### **Presentation 2, Title: Enlightened compassion: 'Morally exceptional' traits below and between Big Five Agreeableness and Openness/Intellect**

**Presenter: Erin C. R. Lawn, The University of Melbourne, Australia: elawn@student.unimelb.edu.au**  
**Authors: Erin C. R. Lawn, Simon M. Laham, Kun Zhao, & Luke D. Smillie**

Moral exceptionality—the expression of affects, cognitions, or behaviours that are both ethical and non-normative—drives moral progress. Yet, individuals differ in their tendency to express such characteristics, prompting the question: who is morally exceptional? In our ongoing research, we investigate the 'morally exceptional' consequences of two correlated Big Five traits—Compassion (an aspect of Agreeableness) and Openness (an aspect of Openness/Intellect). We label their covariance 'enlightened compassion (EC)', or the tendency to express positive regard toward a diverse range of entities. In Studies 1a (N = 774; pre-registered) and 1b (N = 414), we develop a shortlist of EC items, and show that EC predicts self-reported moral exceptionality including moral expansiveness and moral imagination. In Study 2 (N = 251; pre-registered), we replicate these findings, and run a confirmatory factor analysis to finalise our EC scale. In Study 3 (N = 190), we show that EC predicts relevant values and attitudes such as universalism and low social dominance orientation. Future studies investigating (i) EC's relation with actual morally exceptional behaviour, and (ii) mechanisms explaining individual differences in EC, are also discussed.

### **Presentation 3, Title: Personality and ideological correlates of willingness to engage in socially inclusive behaviours**

**Presenter: Kun Zhao, Monash University, Australia: kun.zhao@monash.edu**

**Authors: Kun Zhao, Ryan Perry, & Nicholas Faulkner**

One important aspect of prosociality is the willingness to help and cooperate across group boundaries. Two ideological orientations that may account for individual differences in these behaviours are right wing authoritarianism (RWA), the tendency to submit to in-group authorities, and social dominance orientation (SDO), the tendency to favour group-based hierarchy. We examine the role of SDO and RWA in the willingness to engage in a range of socially inclusive behaviours in an Australian community sample (N = 2,632). These included small, interpersonal gestures (e.g., saying hello to people from other groups), acts of helping the disadvantaged (e.g., mentoring people from disadvantaged groups), and collective action (e.g., organising a demonstration). We test a differential prediction model in which SDO negatively predicts helping disadvantaged groups and RWA negatively predicts collective action behaviours in accordance with their motivational bases. We also report on the relationships between SDO, RWA, and broad personality domains of Openness and Agreeableness. These findings provide useful insights on how individual differences can be considered in efforts to address prejudice and discrimination in Australia.

### **Presentation 4, Title: The need for meaning motivates costly prosociality**

**Presenter: Brodie C. Dakin, The University of Melbourne, Australia: bdakin@student.unimelb.edu.au**

**Authors: Brodie C. Dakin, Brock Bastian, & Simon M. Laham**

What motivates costly prosocial behaviours? While some are driven by feelings of compassion or expected reciprocity, others may act altruistically out of their need for existential meaning. This need for meaning is defined as the motivation to perceive one's existence as coherent, purposive, and significant. Across four studies (N = 784), we show that the need for meaning correlates with greater willingness to engage in a range of costly prosocial behaviours, including volunteering, blood and organ donation, and sacrificing oneself to save others. This need for meaning is distinct from the pursuit of happiness (Study 2 & Study 3) and shares a stronger association with costly prosociality than non-costly prosociality (Study 3 & Study 4). A fifth planned study will investigate the relationship between need for meaning and incidence of actual costly prosocial behaviours. Our findings illuminate the need for meaning as an individual difference variable which uniquely motivates moral and altruistic activity.

### **Presentation 5, Title: They can't help themselves: Selfless motivation predicts lower impact of teacher job performance through task proactivity**

**Presenter: Robert W. Rebele, The University of Melbourne, Australia: rrebele@student.unimelb.edu.au**

**Authors: Adam M. Grant & Robert W. Rebele**

Concern for others is an important source of moral motivation to help others, including through our work. When it becomes selfless, however, it can reduce impact. Drawing on theories of unmitigated communion and resource allocation, we propose that by being overly reactive to help requests, selfless employees are less proactive on their core job tasks, inadvertently undermining their effectiveness at helping others through their work. In a study of over 400 U.S. teachers, we developed a situational judgment test (SJT) to assess teacher selfless motivation, obtained coaches' ratings of teacher task proactivity, and measured the impact of teachers' job performance with lagged data on students' standardized achievement scores. At the end of the school year, after controlling for the previous year's performance, selfless teachers had lower-achieving students than their peers, mediated by lower observer ratings of task proactivity. We also report data from a separate sample of working adults examining associations between our SJT and measures of Big 5 personality traits, unmitigated communion, and proactive personality. Our research contributes new insights about the costs of selfless motivation to the impact of job performance, and it highlights the role of selfless motivation in shaping the moral consequences of an otherwise prosocial disposition.

## **Individual papers - Sport and Wellbeing: Fri 1:40- to 3:20pm**

### **Well-Being and Self-Regulation: An Exploration of Personality Traits and Heart Rate Variability Between Athletes and Non-Athletes**

**Ortega, Emily (Singapore University of Social Sciences)**

Self-regulation plays an important role in many behaviors and a lack of self-regulation is believed to be linked to poor physical health and emotional well-being (Baumeister, Heatherton, & Tice, 1994). In elite sports, self-regulation is also believed a critical factor for successful performance (Kitsantas, Corbatta, Javussanu, & Van de Pol, 2017). Since heart rate variability (HRV) has been identified as a marker for self-regulation, it was postulated that elite athletes from a closed skill sport that demands high self-regulatory abilities for sporting success would have higher HRV in comparison to athletes from a team sport and a non-athlete population. Personality traits of the three groups were also assessed to determine if HRV plays a role in trait differences that may elicit varying autonomic responses. A Singapore based sample of 122 were examined, comprising of athletes from an individual closed skill sport (shooting), athletes from a team sport (floorball), and a non-athlete population (university students). It was anticipated that shooters would have the highest HRV and conscientiousness scores, while team sport athletes would have the highest extraversion scores. Comparisons between the three groups found significant differences in HRV, openness, conscientiousness, extraversion, and agreeableness. HRV was highest for the shooters, lending further support for HRV as a marker of self-regulation.

### **Public perception of credibility predicts negative character inferences: Implications for athlete defences following accusations of doping**

**Jacinta King, Terry Engelberg, & Marie L. Caltabiano (James Cook University)**

Current anti-doping policies allow for innocent athletes to be penalized in cases where accidental or inadvertent consumption of a banned substance has occurred. Whilst previous work has investigated the comparative effectiveness of different formulations of an apology, research has yet to examine the effects of different denial strategies. To address this question, the current study used Moston and Stephenson's (2009) typology of denial strategies as a basis for developing an experiment designed to assess the relative persuasiveness of a range of different types of denial. Using a quasi-experimental design, participants (Males:  $n = 48$ , Females:  $n = 83$ ) read a short vignette describing a fictional athlete, an alleged doping charge, and the athlete's response. Participants evaluated the credibility of the fictional athlete's denial of wrongdoing and were asked to evaluate the athlete based on three negative traits: Machiavellianism, Psychopathy and Narcissism. The questionnaire was comprised of items pertaining to various aspects of credibility and utilised an adaption of the Dirty Dozen to measure the three dark traits. Results indicated that there were no significant differences in how the athlete was perceived depending on the type of denial used, and the athlete was largely neutrally perceived in evaluations of credibility. Participant characteristics, such as involvement in sport, did not significantly affect or predict how the athlete was evaluated. However, results indicated that athletes judged as less credible were likely to suffer negative inferences to their character. Interestingly, Machiavellianism and Psychopathy significantly predicted the extent to which an athlete was seen as credible, whereas no such effect was observed for Narcissism. Several explanations arise as to why this might be apparent. The current study provides a starting point in which further research might begin on the topic of the effectiveness of denial strategies as a defence following accusations of doping.

### **Individual Pathways to Flourishing: The influence of Sensory Processing Sensitivity on Wellbeing**

**Becky Black (University of Melbourne)**

Sensory Processing Sensitivity (SPS) is a personality trait describing individual differences in responsiveness to both good and bad environmental stimuli. Research has linked SPS with not only increased risk for poor wellbeing outcomes (e.g. anxiety, depression, stress) in response to negative environments, but also greater benefits (e.g. responsiveness to interventions, positive affect) in response to positive environments. To examine the relationship between SPS and multiple dimensions of wellbeing, 446 adults completed an online self-report questionnaire, and we examined correlations amongst SPS, wellbeing, and personality. SPS was inversely related to wellbeing but became positively correlated with several dimensions of wellbeing after controlling for neuroticism and symptoms of depression. Although SPS and neuroticism were strongly correlated ( $r = .54$ ), they were distinct factors. Findings suggest that the poor wellbeing outcomes of SPS arise from neuroticism rather than sensitivity. These results extend previous research into SPS by providing initial evidence of the trait's potential benefits to wellbeing, which previously were merely conjecture. This study further expands current knowledge about the associations between personality traits and diverse ways of flourishing in life.

# **Individual Papers: On narcissism, texting, and internet trolls**

**Session Chair: Associate Professor Kate Fritzon, Bond University**

## **U mad bro? A qualitative analysis of Internet trolling**

**Evita March (Federation University) & Jessica Marrington (USQ)**

Despite the recent scholarly attention Internet trolling has received, there is significant confusion regarding the definition of this behaviour. In the current study, 379 participants (60% women) completed an online questionnaire providing qualitative responses to the following: How do you define Internet trolling? What kind of behaviours constitute Internet trolling? Does Internet trolling differ from Internet cyberbullying? Have you ever been trolled online, and if so how did it feel? Have you ever trolled someone online, and if so who did you troll and why? Qualitative responses were assessed with word frequency analyses, showing Internet trolling to be most commonly characterised as an abusive, aggressive behaviour, and behaviours commonly associated with Internet trolling included arguments, bullying, harassment, and insulting. Results highlight the subjective nature of humour in Internet trolling, suggesting individuals most likely to find the behaviour humorous are those who have previously trolled and been trolled. Based on these qualitative responses, we suggest future research seek to differentiate between 'kudos' trolling and CyberHate when exploring antisocial online behaviours.

## **The Online Masters of Emotional Manipulation: Primary Psychopathy, Empathy, and Internet Trolls**

**Natalie Sest & Evita March (Federation University Australia)**

Previous research has established trait psychopathy as a positive predictor of Internet trolling; however, such research has not differentiated between primary and secondary psychopathy. Primary and secondary psychopathy both encompass a broad range of (sometimes conflicting) traits, and distinguishing between these forms will further understanding of the Internet troll personality profile. The aim of the current study was to replicate previous findings of gender, psychopathy, sadism, and empathy (cognitive and affective), and extend the research by differentiating between primary and secondary psychopathy. A sample of 626 participants (72.2% female, 27.8% male) with a mean age of 23.68 years (SD = 8.23) completed an online questionnaire. Results supported previous research: Males were more likely to troll, sadism was a positive predictor, and affective empathy was a negative predictor. In addition, only primary psychopathy was a significant positive predictor of trolling, and the positive relationship between cognitive empathy and trolling was only significant when moderated by primary psychopathy. These results indicate the Internet troll may be better characterised by traits associated with primary, not secondary, psychopathy. Thus, the prototypical Internet troll is likely to be manipulative, callous, and able to predict emotional suffering of their victims without experiencing empathy.

## **Understanding the core and peripheral features of narcissism dimensions:**

### **An examination of grandiose and vulnerable narcissism**

**Kate L. Derry, Jeneva. L. Ohan, & Donna. M. Bayliss (University of Western Australia)**

Substantial and compelling evidence from both clinical and empirical discourses provide evidence for two predominant expressions of narcissism - grandiose narcissism (GN) and vulnerable narcissism (VN). Consolidating these two narcissism dimensions and their diverse nomological networks under a central narcissism construct has been a core challenge of the field over the last decade. To advance our understanding of the broader narcissism construct and its impact, it is necessary to understand the core and peripheral features of narcissism and how current scales represent GN and VN. In three studies, the validity of the Narcissistic Personality Inventory, Pathological Narcissism Inventory, and the recently developed Narcissism Scale, were examined using an exploratory factor analysis, and the central and peripheral features of narcissism were investigated in relation to the HEXACO personality model and adaptive self-appraisals. Two higher-order factors of narcissism were identified. Both shared a common core of low honesty-humility and were primarily demarcated by extraversion. Low honesty-humility, and to a lesser extent disagreeableness, represented the core of narcissism across studies and distinguished narcissism from self-esteem and self-compassion. These findings advance our understanding of the diversity in narcissistic personality dimensions and illustrate how unidimensional conceptualisations may impede our understanding of the narcissism construct.

## **Do grandiose and vulnerable narcissism dimensions exist prior to adulthood?**

**Kate L. Derry, Donna. M. Bayliss, & Jeneva. L. Ohan (University of Western Australia)**

The distinction between grandiose narcissism (GN) and vulnerable narcissism (VN) is new to the child literature, but initial findings suggest that it may have important implications for understanding the impact of trait narcissism prior to adulthood. Using the Narcissism Scale for Children, two studies were conducted to explore the differences between GN, VN, and self-esteem in children. Study 1 investigated parent and child variables that are theoretically relevant to the development of narcissism. Children (N = 137; ages 8-12) and their parent completed an online survey. In support of a dual-pathway hypothesis, regression analyses determined that GN, VN, and self-esteem in children were each associated with different child temperaments and parenting styles. In Study 2, an experimental design was used to examine how GN and VN influence externalising and internalising responses to ego-threat and performance estimates. Children (N = 124; ages 8-12) completed a challenging maze task. Regression analyses showed that VN in children was related to increased hostility, anger, shame, and anxiety, and that GN was related to inflated task performance self-estimates following ego-threat. The results advance our understanding of heterogeneous self-appraisals and elucidate the importance and impact of differentiating expressions of GN and VN prior to adulthood.

## **Interpersonal Deviance and the Interacting Influences of Maverickism Narcissism, and Networking Ability**

**Mack Zhou & Elliroma Gardiner (Griffith University)**

The aim of the current research was to investigate whether individuals high in maverickism, a tendency to engage in risky goal-directed behaviour, would be more likely than those low in maverickism to engage in antisocial behaviour, namely interpersonal deviance. It was hypothesised that maverickism would be positively associated with interpersonal deviance (Hypothesis 1) and that the maverickism-interpersonal deviance relationship would be moderated by narcissism and networking ability, such that deviance would be highest for individuals high in maverickism, narcissism and low in networking ability were more likely to engage in interpersonal deviance (Hypothesis 2). A total of 282 employed Australian adults (207 Females, 75 Males, age = 25.71, SD age = 9.48) completed an online questionnaire measuring maverickism, narcissism, political skills and interpersonal deviance. Regression analysis and follow-up simple slopes analysis supported our hypotheses. Our results provide further evidence identifying maverickism as an antecedent of dysfunctional behaviours and suggests for individuals who are eccentric, rule breaking and egotistical, networking ability may buffer against the negative effects of interpersonal deviance. Implications and directions for future research are discussed.

## **Individual Papers- Assessment of Scales- Fri 3:50 to 4:50pm**

**Bainbridge, Cooper, Hicks**

### **Where does this scale fit anyway? Can personality experts locate scales within the Big Five?**

**Tim Bainbridge\*, Steven Ludeke\*\*, & Luke Smillie\* (\*The University of Melbourne; \*\*University of Southern Denmark)**

As personality psychologists we often assume that narrow personality-trait scales (e.g., self-esteem, optimism, grit) should be located within taxonomic models such as the Big Five or HEXACO. However, many such scales have not been systematically incorporated into the Big Five (or demonstrated to be beyond the Big Five) and our proclamations remain untested. In this presentation, a method to evaluate scale location is described and a study to assess how good experts really are at identifying where scales fit within the Big Five is proposed. A number of different measures of expert accuracy are considered, and a mixed effects model comparing expert estimates with data collected in two student samples and an MTurk sample (total N = ~1,000) is briefly summarised. This emerging research program will evaluate how well major taxonomic models describe narrow personality-trait scales, and how well personality experts understand these mappings.

# **Preliminary psychometric characteristics of a measure of appearance and performance-enhancing supplement and substance usage**

**Marita Cooper (ANU), Richard Hicks (Bond), & Kathleen M Griffith (ANU)**

The use of both licit and illicit appearance and performance-enhancing drugs (APED) has been recognized as a key public health concern. Whilst it is estimated that rates of APED usage in non-athlete populations is increasing, true prevalence studies are limited by a lack of psychometrically reliable and valid measures. This paper describes the initial development and pilot exploration of a survey tool assessing APED usage followed by the findings from a second evaluation of the scale's psychometric reliability and validity. Method: The pilot study assessed the internal consistency and reliability of the Appearance and Performance Enhancing Supplement Use Scale (APES) in a sample of 67 participants. Following this, study 2 evaluated the factor structure, concurrent validity, internal consistency and test-retest reliability of the APES in a community sample of 262 participants. Results: The APES demonstrated strong internal consistency, medium to strong concurrent validity, and good to excellent test-retest reliability. A two-factor model of supplements and substance use items was supported for the data. Conclusions: These results provide preliminary support for the reliability and the validity of APES in assessing both licit and illicit APED usage. Future studies are recommended to replicate and extend the psychometric investigations reported here to encompass additional validation studies and populations.

## **MINI-WORKSHOP 4.10 to 5.10pm- Meta-Analysis research made easy**

**Systematic Review & Meta-analysis: automation tools to help your review**

**Alexandra Bannach-Brown & Justin Clark (Bond University)**

Systematic review and meta-analysis are powerful tools to provide an unbiased overview of all available literature addressing a specific research question. The findings from systematic reviews and meta-analyses can inform policy and decision-making as well as explore aspects of experimental design that contribute to heterogeneity in effect size. However, systematic reviews are resource-intensive and due to the increasing rate of publication findings are likely to be out of date when published. To improve speed and quality, methodological innovations and automation tools have emerged to support many steps in the production of evidence syntheses. This workshop focusses on how to perform systematic reviews and tools specific to automating parts of the review process to reduce the time required to complete systematic reviews. The methods of conducting a systematic review and meta-analysis will be covered. A guide to using automation tools in reviews will be demonstrated, specifically; tools to refine and perform systematic searches, tools to help screen citations for inclusion, find full texts and assess studies, extracting data, and meta-analysis.

Alexandra Bannach-Brown, is Research Fellow, Centre for Research in Evidence -Based Practice

Justin Clark, is Senior Research Information Specialist, Centre for Research in Evidence -Based Practice & Cochrane

Both presenters bring extensive experience in reviews of available research literature and understanding of researcher needs. Meta-analyses assist greatly in the research process but is often time intensive and demanding. This workshop shows how to manage the demanding process in a relaxed time-saving and comfortable way. All are welcome.

## **Posters, Keynote Speaker, Conference Party, Nibbles, and Student Honours: 5.45- 8.00pm (Princeton Room)**

**KEYNOTE - 6.15 to 7pm Assistant Professor Dr Aileen Pidgeon (Bond University)-**

### **A Call to Psychologists: Addressing mental health needs using the digital technology of mental health applications**

For over a decade, the psychological treatment of mental health issues has been undergoing a fundamental change. This change has been largely driven by the continued significant unmet need for mental health services and the availability of digital technology such as the internet and mobile devices. Individuals around the world are becoming increasingly dependent on the internet to obtain information and interact with services, due to flexibility, convenience, choice, cost and time savings. This dependence is becoming more evident as individuals seeking mental health information and support report preferring to access services online rather than face-to-face services. The field of mobile mental health ("M-Health") is evolving rapidly with an unprecedented growth of psychological tools on the market including preventive and therapeutic interventions. M-Health applications offer the opportunity for mental healthcare delivery anytime and anywhere overcoming geographical, time based organizational barriers with low and affordable costs. M-Health applications can be used as a bridge between face-to-face therapy sessions, improve adherence to out of therapy activities while promoting patient autonomy. Given the ever-increasing demands and limited supply of mental health services, coupled with barriers to care including a patient's desire for anonymity, indirect financial costs and impaired access to mental health services, the use of apps could promote mental health service efficiency as well as supporting the mental health system to achieve the promise of providing equal access for equal need. The challenge that psychology faces with the rapid increase of m-health applications is the availability of low-quality applications with a lack of an underlying evidence base, a lack of scientific credibility and limited clinical effectiveness. M-health application designers are rarely psychologists and if they were, there would be better accuracy of the content with evidence to support the efficacy of the application. The barriers for psychologists designing m-health applications are typically a lack of technical skills and time. This paper will discuss the growing need for psychologists to shift their philosophy—from seeing what happens—to a prioritisation of designing and evaluating m-health applications in the provision of high-quality clinical services to patients.

#### **BIO:**

Aileen Pidgeon, PhD (Clin) is an Assistant Professor Psychology at Bond University, co-Chair 4th Year Bond Psychology Programs, and a board registered Clinical Psychologist. Dr Pidgeon's widely published research identifies innovative ways to reveal the full transformative potential of mindfulness training. In recent years, the main focus of Dr Pidgeon's research is determining the optimal ways to integrate mindfulness into universities to improve psychological well-being and resilience in university students. At Bond University, Dr Pidgeon has led a research team to develop the evidence-based Mindfulness Awareness Resilience Skills Training (MARST) program, which includes a mental health application. She also designs and teaches research-based mindfulness retreats and workshops on the science and practice of mindfulness. She has also led training, workshops and retreats to promote the psychological health and wellbeing in the community. Dr Pidgeon sits on a number of boards and advisory groups in the field of education and research.

## **5.45- 8.00pm: Poster discussions, nibbles, networking (Princeton Room)**

Progress reports on best student oral presentation and best poster awards to be given at 7.30pm, with prize determinations on Saturday afternoon after today's and Saturday's presentations.

POSTER ABSTRACTS AT END OF PROGRAM



## **SYMPOSIUM 3: Emotional Intelligence and Emotional Regulation. Saturday 9am-11.55.**

**Speakers:** Carolyn MacCann (Sydney University), Indako Clarke (Sydney University), Sarah A. Walker (Sydney University), Mattis Geiger (University of Ulm), Mahreen Khan (University of New South Wales), Hannah Kunst (Maastricht University)

**Chair:** Hannah Kunst

### **Presentation 1 : Development of the Regulation of Other's Emotions Scales (ROES)**

**AUTHORS:** Carolyn MacCann (Sydney University), Rebecca Pinkus (Sydney University), Sally Olderbak (University of Ulm), Elizabeth Austin (University of Edinburgh), Karen Niven (University of Manchester)

**ABSTRACT:** Emotion regulation is an influential area of research, with implications for wellbeing, workplace performance, school success and relationship satisfaction. However, the major instruments for emotion regulation assess strategies for self-regulation only, and neglect other-regulation. In this study, we present the development of the Regulation of Other's Emotions Scales (ROES). A sample of 321 participants recruited from Prolific Academic answered 96 items assessing emotion regulation. Exploratory and confirmatory factor analysis were used to select 50 items forming 9 factors (RMSEA = 0.051; CFI = 0.892). Reliability of the 9 subscales ranged from .78 to .94. Females scored higher on reappraisal, acceptance, valuing, distraction, and social sharing. Males scored higher on expressive suppression. Older people scored higher on downward social comparison whereas younger people scored higher on humour and distraction. Results will be discussed in terms of the utility of this scale for future research.

### **Presentation 2: Correlates of Strategies for Other-Regulation of Emotion: An experience sampling study**

**AUTHORS:** Indako Clarke, Carolyn MacCann, Rebecca Pinkus, & Hannah Kunst

**ABSTRACT:** Regulating others' emotions is critical for life success. Current research on emotion regulation largely neglects regulation of others' emotions, focusing instead on self-regulation. In an experience sampling study, university students completed six daily surveys over five days. Each survey asked about how the participant was feeling at that moment, and the strategies that they had used to regulate another person's emotions. Participants also completed a battery of questionnaires examining aspects of emotional intelligence, personality, self-esteem, empathy, attachment style, and emotion regulation strategies. Preliminary results of a pilot study will be discussed. Data collection is currently ongoing.

### **Presentation 3: Personality, Performance Anxiety and Mental Health in Opera Singers**

**AUTHORS:** Walker, Sarah A., MacCann, Carolyn., Double, Kit S., & Tiliopoulos, Niko

**ABSTRACT:** There has been increasing concern regarding the mental health of opera singers with a recent report revealing high levels of anxiety and depression within the industry (Entertainment Assist, 2016). Prior research has highlighted the link between performance anxiety and mental health (Robson & Kenny, 2017), as well as performance anxiety and narcissistic tendencies (Gabbard, 1983). Additionally, emotional intelligence predicts both mental health (Fernandez-Abascal & Martin-Diaz, 2015), and test anxiety in academic settings (Ahmadpanah et al., 2016). Results from the present study, consisting of 106 opera singers supported the hypotheses finding (1) emotional intelligence was significantly negatively associated with mental health, primarily depression; (2) greater performance anxiety was significantly positively related to mental health concerns, particularly stress; (3) Performance anxiety partially mediates the relationship between emotional intelligence and mental health; (4) Greater vulnerable narcissism, but not grandiose narcissism, was significantly and positively associated with mental health concerns. Additional findings will be presented and discussed.

## **Presentation 4: Regulating the Pained Face: Individual Differences in Simulation and Suppression of Facial Emotion Expressions while in Pain**

**AUTHORS: Mattis Geiger, Lianna Hrycyk, & Oliver Wilhelm**

**ABSTRACT:** Relative to emotion perception, emotion recognition, and other similar ability concepts, productive aspects of emotional intelligence (such as emotion expression) are understudied. The ability to control facial expressions is a crucial facet of emotional intelligence. Different approaches have been used in the past to assess this productive ability, namely by instructing subjects to produce a certain emotion expression without actually experiencing the corresponding emotional sensation. In the present set of studies, we seek to contribute to these efforts by assessing regulative abilities required for simulating and suppressing emotion expressions. In order to induce controlled emotional states – a prevalent problem in emotion research – we apply pain stimulation in a safe and standardized manner. We introduce faking, masking, enhancing, and neutralizing as four paradigms for studying facial expression regulation while experiencing pain. In two larger ( $n_1 = 159$ ;  $n_2 = 134$ ) multivariate studies, we find that simulation and suppression are distinct regulative expression abilities that uniquely relate to other interpersonal and cognitive abilities. We conclude that simulation and suppression of facial pain expression can be considered as a relevant facet of emotion expression ability. Moreover, this ability deserves further studying and embedding into the nomological net of emotional and general intelligence.

## **Presentation 5: Emotional Intelligence and Work Experience: A Meta-analysis**

**AUTHORS: Mahreen Khan, Amirali Minbashian, Carolyn MacCann**

**ABSTRACT:** Emotional intelligence (EI) is comprised of knowledge and skills. As the occupational context provides an avenue in which individuals can learn and practice the relevant knowledge and skills relating to EI, we hypothesised that there would be a positive relationship between EI and amount of work experience. We examined this relationship by EI stream and EI facet. Moreover, we hypothesised that the nature of the work experience would influence the rate of increase in EI, such that EI would increase to a greater extent as a function of experience in occupations that make greater demands on the knowledge and skills that underlie EI. We test this hypothesis by examining whether the EI-work experience relationship is moderated by the EI requirements of the occupation, Holland's vocational interests, work styles and work values. To test these hypotheses, we used a random-effects meta-analysis of 87 samples ( $N = 20,415$ ). We discuss the findings in relation to how they contribute to our understanding of the development of EI, and practical implications relating to selection and training in organisations.

## **Presentation 6: Emotional Intelligence and its relation to appraisal, coping and stress**

**AUTHORS: Carolyn MacCann (Sydney University) and Hannah Kunst (Maastricht University)**

**ABSTRACT:** It has been proposed that people high in Emotional Intelligence (EI) are better able to deal with stress leading to better or more effective coping. Yet the mechanisms linking EI and regulatory responses are not well documented. A sample of 96 first-year University students were subjected to a lab-induced stressor (a mathematics test intentionally designed to be too difficult). Higher EI was expected to be positively associated with post-task appraisal of controllability, problem-focused coping and reappraisal, and resilience to stress (i.e. smaller difference in pre- to post-task stress measurement). EI was moreover expected to predict lower reactivity to stress, mediated by type of coping and situational appraisals. We find that these hypotheses are not supported. Relations between EI, coping, appraisal and stress exist at baseline, but not following the experimental manipulation. Results will be discussed highlighting that individual differences including EI seem to be influential in everyday, non-stressful situations, but not in extreme stress-situations.

## **Individual Papers- Student Pressures. Sat 9.00-10.20am.**

**(Loxton, Vanstone, Bore, Rodaughin)**

### **Goal-Drive Persistence, Impulsivity, and Freezing associated with Psychology students' attitude and anxiety to learning statistics.**

**Natalie J. Loxton, Jaimee Stuart, & Alex O'Donnell ( School of Applied Psychology, Griffith University)**

The greatest challenges to teaching statistics to psychology students are engaging students who perceive the topic as irrelevant and boring, and who experience high levels of anxiety. This study assessed whether reward sensitivity, impulsivity, fear, and anxiety would be associated with students' attitudes and anxieties in a third-year statistics course. 318 students completed a battery of questionnaires during the first computer lab of the course assessing their attitude to the value of learning statistics, statistics anxiety, technology self-efficacy, reward sensitivity (Reward Interest, Goal-Drive Persistence, Reward Reactivity); Impulsivity, Behavioural Inhibition, Flight, and Freezing. Controlling for age and gender, higher Goal-Drive Persistence and Technology Self-efficacy were significantly associated with more positive attitudes and confidence to the study of statistics. Goal-Drive Persistence was also associated with lower statistics anxiety. Students higher in Freezing were more anxious about studying statistics. Those high in impulsivity were similarly more anxious about studying statistics and additionally viewed the course, and their statistics abilities, more poorly. This study provides preliminary support for the role of personality traits in attitudes and anxiety related with undergraduate statistics courses in psychology.

### **Test Anxiety and Perfectionism in University Students**

**Daisy Vanstone & Richard Hicks (Bond University)**

The pressure to perform well in university exams can lead to high test anxiety, resulting in increased attrition rates amongst first year university students. Spielberger and Vagg's (1995) transactional process model of test anxiety specifies that individuals with specific personality traits (e.g., perfectionism) possess cognitive biases, which influence their perceptions of testing situations as stressful. However, research comparing the level of test anxiety experienced by individuals with perfectionism compared to individuals with non-perfectionism have revealed inconsistent results. Thus, the current study sought to address this inconsistency, by clarifying the relationships of anxiety with different forms of perfectionism. Participants (148), first year students from south-east Queensland universities, completed the Depression Anxiety Stress Scale - 21, Almost Perfect Scale - Revised, Test Anxiety Inventory, Marlowe-Crowne Social Desirability Scale, and a demographic questionnaire. Consistent with theory, an Analysis of Covariance (ANCOVA) revealed that students with adaptive perfectionism and maladaptive perfectionism experienced significantly different levels of test anxiety. However, an unexpected finding was that no significant difference was found between individuals with maladaptive perfectionism and non-perfectionism. Implications for further research and for treatment interventions are discussed.

### **Authoritarianism, political values and religiosity in prejudiced attitudes toward minority groups**

**Miles Bore and Megan Cook (University of Newcastle)**

Prejudice toward different others, particularly minority groups, has a substantial research literature and social history clearly showing the negative impact this has on recipients. Victims of prejudice experience discrimination that can be subtle through to lethal. The authoritarian personality from the work of Adorno and then Altemeyer, together with other variables, has provided some profiling of the individual differences of the perpetrators of negative attitudes and actions toward minority groups. The purpose of our study was to further explore the correlates and predictors of those who have negative attitudes toward gay and lesbian people. Undergraduate students (n = 200) completed measures of authoritarianism, the Big Five, empathy, aggression, masculine and feminine traits, sexual identity, same sex experience, religiosity and political values. Participants also completed a general negative attitudes measure to allow for comparison of the predictors of specific negative attitudes to sexual minorities. Regression analysis found religiosity, political values and openness to be the only unique significant predictors. Further results and discussion of the implications of the findings will be presented.

# **Indigenous Students in Tertiary Education: Predictors of Academic Achievement, Satisfaction with University Experience, and Attendance**

**Caitlin Rodaughan**

Indigenous people encounter numerous challenges throughout tertiary education, often resulting in poorer achievement, lower satisfaction with university experience (SWUE), and poorer attendance (ABS, 2016). While these differences fall within the broader historical context of colonisation, the effects of other factors such as motivation, among protective factors and failure dynamics on education outcomes, are not well understood. The present study therefore examined the effects of motivation type, protective factors (e.g., resilience), and failure dynamics (i.e., shame and fear of failure) on achievement, SWUE and likely attendance within self-determination theory (SDT) and Martin's (2006) model of education outcomes. A sample of 104 Indigenous Australian university students from across Australia completed a series of questionnaires online. The hypotheses that intrinsic motivation would account for significantly more variance in all three education outcomes (than amotivation or extrinsic motivation) were not supported. It was also predicted that academic self-concept, perceived social support, and resilience would account for significantly more variance in each education outcome than failure dynamics. This hypothesis was supported for achievement and SWUE but not for likely attendance. The present study did not support the SDT yet supported Martin's model of education outcomes. This research highlights the need for universities to focus on services which foster protective factors such as resilience. Further research should address limitations of the present study and assess other aspects of the SDT such as basic psychological needs. research and for treatment interventions are discussed.

## **SYMPOSIUM 4: Core Self Evaluations: Should you believe the hype? Sat 9am-10.20.**

**Presenters: Dr Elliroma Gardiner (corresponding author) [e.gardiner@griffith.edu.au](mailto:e.gardiner@griffith.edu.au) , Trent Henderson, Matthew Sampson, and Nikki Stevens**

### **Symposium Abstract**

Individuals high in Core-Self Evaluations tend to have a positive view of themselves, be confident in their abilities, and believe they can influence their environment. In contrast, individuals low in CSE tend to have a negative view of themselves where they focus on their failures and shortcomings, and see themselves as more susceptible to their environment (Bono & Judge, 2003; Jiang & Jiang, 2015; Judge et al., 1998; Judge & Hurst, 2007b). There are four components that contribute to an individual's CSE: self-esteem, generalised self-efficacy, emotional stability, and locus of control. Self-esteem refers to the extent individuals view themselves as capable and worthwhile. There is a growing body of research that shows that individuals high in CSE enjoy many benefits, in terms of higher incomes and faster pay increases than those low in CSE (Judge & Hurst, 2008). The aim of the current symposium is to present some new research investigating CSE with respect to its measurement, relationship with career satisfaction and income to determine whether CSE is as useful predictor as extant research suggests.

### **Presentation 1: Defining core-self evaluations and exploring its theoretical foundations**

**Dr Elliroma Gardiner**

In this presentation the theoretical and conceptual framework of CSE will be explored in light of emerging research indicating that CSE can be modelled using the approach/avoidance framework.

## **Presentation 2: Measuring Core Self-Evaluations: CSES a Replication of Bi-Factor Dimensionality, Reliability, and Criterion Validity**

**Trent Henderson**

The current research investigated whether the NWF found in previous research could be replicated in three Australian samples, which consisted of both students and adult community volunteers. Results revealed that the NWF provided a better model fit than the unifactor model but was inferior to an alternative model which measured a positive wording factor (PWF). However, the NWF model possessed equivalent composite reliability to the unifactor model in Study 1, but slightly superior composite reliability in Study 2 and Study 3. In addition, the NWF possessed poorer criterion validity estimates for both life satisfaction and career satisfaction. Contrasts to previous research which has substantiated the claim of a NWF in the CSES, and recommendations for research and practice are discussed.

## **Presentation 3: How political skills and self-monitoring impact supervisors satisfaction at work: An investigation of the moderating effect of social astuteness and self-monitoring on the CSE – Career Satisfaction relationship**

**Matthew Sampson**

This study aimed to investigate whether self-monitoring and social astuteness moderated the relationship between core self-evaluation and career satisfaction in a sample of supervisors. It was hypothesised that career satisfaction would be lowest for supervisor's low in core self-evaluation, social astuteness and self-monitoring. While supervisors high in core self-evaluation, social astuteness and self-monitoring were hypothesized to experience higher career satisfaction. Analysis identified a significant three-way interaction between self-monitoring, social astuteness and core self-evaluations in the prediction of career satisfaction supporting both hypotheses. The findings suggest that increased levels of core self-evaluation, self-monitoring and social astuteness have the potential to positively impact the career satisfaction of supervisors. This study provides further support for early career interventions that enable the development of increased core self-evaluation, political skill and self-monitoring within the workforce.

## **Presentation 4: Investigating the moderating effects of self-monitoring and networking ability on the cores self-evaluation-income relationship: An extension of Venz and Gardiner (2017)**

**Nikki Stevens**

In light of research demonstrating the benefits and costs of self-monitoring, the current work was interested in determining whether self-monitoring, in combination with networking ability and core-self evaluations would positively or negatively impact income. Extending on the work of Venz and Gardiner (2017), the current study hypothesised that income would be highest for those high in networking ability, core self-evaluations and low in self-monitoring. We reasoned that individuals low in self-monitoring would have more attentional resources available to improve performance, thereby positively impacting income. Participants were 343 Australian adult volunteers aged 18-70 years ( $M = 34.91$ ,  $SD = 11.07$ ). Regression analysis and follow-up simple slopes analysis supported our hypothesis. This study provides some potential boundary conditions for the positive effects of self-monitoring. Implications and future directions will be discussed.

# **Individual Papers- Medical Student Selection - Personality and emotional attributes**

**Saturday 10.50am-11.55am**

## **Personality and values tests in the joint medical schools selection process for the Universities of Newcastle and New England**

**Don Munro, Miles Bore, and David Powis (School of Psychology, University of Newcastle)**

The Personal Qualities Assessment (PQA) group at the University of Newcastle developed a small battery of non-cognitive tests for use in medical selection in the early 2000s. These have been developed further and used experimentally and for selection in several countries. Since 2011 the battery has been used as part of the selection process for students applying to the Joint Medical Program of the Universities of Newcastle and New England. About 700 students are tested each year, and they also undergo a Multiple Skills Assessment process of 9 'stations'. Detailed analyses of some of the relationships between the PQA tests, MSA stations, the nation-wide UMAT medical selection tests, and demographic variables, will be presented. Factor analyses suggest the relative independence of these selection modes.

## **Predicting academic and professional outcomes in medical school: Reflections**

**Don Munro, Miles Bore, and David Powis (University of Newcastle)**

This presentation reflects on the results of a longitudinal study of a cohort of medical students (n=140) followed through their undergraduate medical course in a UK university. These results have been reported in two papers in the medical education literature only. Two batteries of personality and values tests were administered before entry to the course, and scores from these plus a range of ability measures and demographic factors were correlated with a wide range of academic and clinical behaviours (including negative behaviours) systematically collected over the five-year course. Results showed a complex pattern of relationships, with the predictor variables and behavioural measures taken early in the course correlating with some later outcomes but not others. The results illustrate the difficulty of predicting complex behaviours in a 'real-life' setting using the measurement methods currently available.

## **Selecting Medical Students at Bond University: More than Academic Excellence**

**Kirsty Forrest<sup>1</sup>, Amy Bannatyne<sup>1</sup> and Craig Gilles<sup>2</sup> (1Faculty of Health Sciences & Medicine, Bond University; 2Revelian, Brisbane)**

Entry into a medical program is highly competitive in Australia. Presently, there is no gold standard for selecting medical students and the task of selecting candidates that will be "successful doctors" is complex and multifaceted. Most medical schools use a combination of tools to select applicants. Exceptionally high academic thresholds are, however, a prominent feature in most selection criteria.

While many argue there is a reasonable basis for including an "academic hurdle", with medical training requiring students to master and critically analyse a significant volume of complex information, scholars are increasingly arguing that medicine overemphasises general intelligence and underemphasises emotional intelligence (EI). In addition to being related to clinical performance and academic achievement in medical education, EI has been associated with improved empathy in medical consultations, enhanced doctor-patient relationships, and greater patient satisfaction. To date, consideration of EI when selecting medical students has been largely absent from admission criteria.

In 2018, Bond University was the first known Australian University to introduce explicit and robust testing of EI as part of the selection process for its medical program. The first intake of students selected through the new process commenced their degrees in the May 2018. This presentation will describe our experience of introducing the EI testing, preliminary evaluation results, and our plans moving forward.

## **Individual Papers- Personality traits in action. Saturday 10.50-11.55am**

**(Czech, Moss, Winter)**

### **Temporal Stability of Psychopathic Traits from Adolescence into Adulthood: A Systematic Review**

**Suzanne Czech (USQ)**

Claims of the benefits of early-identification of the 'fledgling psychopath' continue despite the unanswered questions about the temporal stability of these traits and the potential harms associated with labelling these adolescents as resistant to rehabilitation. The transient nature of personality features during the critical period of adolescent development calls for a clear definition of the psychopathy construct, and evidence for temporal stability into adulthood. However, temporal-stability research is lacking, and, further compromised by both, a lack of psychometric validity evidence for psychopathy measurement in adult samples, and inadequate empirical or theoretical rationale for the use of these adult-modified instruments in adolescent populations. To address the demand for directed, quality research, a systematic review assessed the temporal stability of three features typically associated with the psychopathy construct (affective, interpersonal, and behavioural), across the transitional period from adolescence (<18 years) to adulthood (≥18 years). A critical analysis of published, and unpublished, longitudinal studies of at least 6 months in duration found insufficient evidence to support a claim of temporal stability for the psychopathic construct across this developmental period. Mean-level, individual-level, and rank-order, stability analyses revealed an overall decline in psychopathic features for all three factors in 87.5% of 16 studies, evidence for both change and stability at the individual-level across four studies, and >50% of studies reported less than moderate support for the affective and interpersonal factors. Particularly noteworthy is the diagnostic instability of psychopathy found in these samples; <20% of diagnosed adolescents met the criteria in adulthood. Clinical implications are discussed.

### **Psychological correlates of extreme political attitudes**

**Jordan Moss and Peter O'Connor (QUT)**

Studies have documented a shift from moderate attitudes to the ends of the political spectrum. This is seen in Political Correctness (PC) on the left, and race-oriented nationalism in the Alt-Right (AR). While highly covered in mainstream media, only one article has investigated PC correlates, with no peer-reviewed research on correlates of AR attitudes. As the first in-depth investigation into the psychological correlates of PC and the AR, we find evidence that extreme political attitudes are largely explained by trait Agreeableness: left-wing extremism predicted by high Compassion and right-wing extremism predicted by low Politeness. We also suggest that PC consists of liberal and authoritarian proponents representing differences in parenting and resilience. Lastly, authoritarian attitudes on the political left and right are predicted by moral absolutism. Our results show that extreme left and right attitudes are separated by individual differences, and that authoritarianism can be seen in both the left and the right.

### **Empathy and Exposure as Predictors of Mental Illness Myth Endorsement in the Workplace**

**Didi Winter & Bruce D. Watt (Bond University)**

There are powerful interpersonal and systemic factors that impact the employment potential for people living with mental illness. While work is considered significant for psychosocial and functional recovery, epidemiological studies show that employment rates for people living with severe and persisting mental illness is low, at approximately 20% in Western cultures. Workplace barriers such as stigma, unfair treatment, and fear of being less likely to be hired due to mental illness continue to be widely reported. The barriers impacting the employability of people with mental illness go beyond the symptomology of their diagnosis. In a society where a person's wellbeing and self-esteem is largely determined by their position in the paid workforce, a better understanding of mental illness in the workplace is vital. In 2017 Hampson et al. identified 10 frequently reported myths that pose barriers to workplace employment for people living with a mental illness. The myths reflected a theme, that people living with mental illness cannot work or do not want to work. The 10 myths identified in Hampson et al.'s (2017) research were extrapolated to develop the 20-item Myth Endorsement Scale (MES) utilised in this project. The current paper describes the development of the MES scale and the contributions of empathy (cognitive and emotional) and exposure amount (knowing two or more people with diagnosed mental illness, versus knowing less than two people) as predicting myth endorsement utilising an Australian sample of 144 participants (51 males, 93 females). Exposure was a significant predictor of myth endorsement; however, empathy was not significant. A significant gender difference in myth endorsement was found, with males endorsing more myths than females. Further research is required to better understand exposure as a predictor of mental illness myth endorsement in the workplace.

## **KEYNOTE SPEAKER -Professor Carolyn MacCann. 12 - 1pm (Princeton Room)**

Carolyn MacCann is one of Australia's leading researchers in several fields but eminently in the field of emotional intelligence. Her strong background is evident in her collegial research and HDR student guidance and leadership, and further evident in any search of the internet with numerous contributions in psychology, high level citations and influential readings. She is editor and/or reviewer for leading international journals in personality assessment and in differential psychology, as well as a continuing substantial contributor. One of her most recent publications (2018) is typical of her work: on the topic of Australian research in Emotional Intelligence citing past contributions and future directions (see the relevant recent issue of the Australian Journal of Psychology). We are fortunate to have her speaking with us on the topic: Emotional Intelligence: Advances and Challenges.

**Address: Emotional Intelligence: Advances and Challenges.**





## **Individual Papers- Stress, Wellbeing and Work**

**Saturday 1:50-3:10pm (Czech, Moss, Winter)**

**(Ashton; Low; Do; & Patching)**

### **Before the bowl breaks: Predicting psychological wellbeing of care providers of individuals with ASD**

**Shyan Low**

Care providers of individuals with Autism Spectrum Disorder (ASD) often find themselves challenged daily with a variety of distinct problems resulting from the individuals' impaired ability to socially communicate and interact with others and the surroundings. Exposure to these constant challenges not only have the ability to negatively impact these care providers' quality of life but also pose unique and significant difficulties towards the maintenance of their psychological wellbeing. Recent research has started to identify and examine predictors of adjustment and acceptance amongst these care providers. Nevertheless, there is still a gap in research focusing on identifying predictors of psychological wellbeing of care providers of ASD individuals across the age range. This study aims to fulfil the gap through the examination of correlations between psychological wellbeing (DASS, WHO-5) and various factors, namely personality (MINI-IPIP), perfectionism (SAPS), emotional intelligence (TEIQ-SF), quality of life (QOLS), and coping styles (Brief COPE). Results obtained from this study will be able to further the understanding within this research area and assist practitioners to develop psychological interventions specific for care providers of individuals with ASD.

### **Stress impacts on organisational culture and personal behaviour– a construction industry perspective in Australia**

**Alan Patching (Bond University)**

A study early this century revealed that young men working in construction in Australia had 2.38 times the national average chance of committing suicide. There was little in-depth research into stress impacts on professionals in the project management of construction projects, nor on attitudes to awareness, avoidance and management of stress in that industry compared with across business at large. This study of 489 participants including construction project managers, administration people within construction companies, and people from broader business used a mix of qualitative and quantitative methods to investigate attitudes to awareness, avoidance and management of stress among construction project management professionals, as compared with non-construction professionals working in construction companies and participants across business at large. The quantitative findings revealed very different responses from the various participant types to several survey questions, and the qualitative analysis revealed important insights into what changes are urgently needed within the industry, why they are needed, and how those changes must be introduced.

### **The Australian Life Script: Implications for Meaning in Life and Psychological Adjustment**

**Lucia Do**

Cultural life scripts are representations of an ideal or prototypical course of culturally important events throughout one's life and their timing. The alignment or non-alignment of an individual's life story is both influenced by and has an impact on several aspects of psychological wellbeing. This presentation will provide preliminary results of a study examining the Australian life script, and the relationships between deviation from the life script with psychological variables including meaning in life, anxiety, depression and interpersonal shame.

# **Individual Papers- Ageing. Saturday 1:50-3:10pm.**

**Session Chair: Assistant Professor Dr Mark Bahr (Bond University)**

## **Predicting Resilience in Ageing: Mental Well-Being, Positive Self-Perceptions of Ageing, and Savouring Beliefs**

**Daniel Simons & Aileen Pidgeon (Bond University)**

Ageing populations are a global phenomenon resulting from advances in medicine, education, and living standards. Guided by the broaden and build theory of positive emotion, and the dynamic model of affect, the current study examined differences between older Australian adults reporting high versus low levels of resilience across mental well-being, self-perceptions of ageing and savouring beliefs. Additional analyses were conducted to determine how self-perceptions of ageing, and savouring beliefs, moderate the relationship between resilience and mental well-being. Participants (N = 139, adults 55 to 94 years) completed surveys measuring mental well-being, self-perceptions of ageing, savouring beliefs, and resilience. Results showed resilience to be significantly positively correlated with mental well-being, positive self-perceptions of ageing, and savouring beliefs. Additionally, mental well-being, positive self-perceptions of ageing, and savouring beliefs were found to significantly positively predict resilience. However, both self-perceptions of ageing and savouring beliefs were not found to significantly moderate the relationship between mental well-being and resilience. Despite being contrary in part to the findings of previous research, these mixed outcomes reflect the findings of other studies and highlight the need to further examine the relationships between key psychological variables associated with mental well-being of older adults.

## **An interesting dissociation between span, visual processing and auditory processing in age related decline**

**Clancy, A., Price, S., & Bahr, M.**

The exact nature of age related changes in cognition remains elusive. One view is that age related cognitive change is the consequence of a system wide process such as generalised slowing (Salthouse, 1991) or failure of inhibitory processes contributing to broad based changes in cognition with age. An alternative view is that particular parts of the cognitive architecture such as the structural cortical network result in uneven changes in loss of function (Chen, Rosa-Neto, Gong, & Evans, 2011). A dissociation study of age related change in STM, visual processing of Thatcherised faces and processing of auditory stimuli from a community sample of 85 participants in three age groups (young, middle aged, older) provides evidence in support of a dissociation of decline. Personal differences in cognitive reserve are explored as contributing factors.

## **Bereavement and cognitive decline**

**Carrol, J. & Bahr, M. (Bond University)**

The impact of conjugal loss on cognitive decline in older adults, independent of the effects from protective and risk factors was investigated in a sample of 59 Australian adults (26 male and 33 female), aged between 50 and 80 years old. Twenty-three participants reported conjugal loss and 36 participants were married, single, divorced, or in de facto relationships. Individual differences in Depression, Personal Wellbeing Index and Resilience in Midlife Scale were investigated as potential mediators of Cognitive decline as measured by the Bond Novel Image Novel Location (B\_NINL; Carroll & Bahr, 2015) associated with loss of a partner. Those who had lost a partner scored lower on visuo-spatial memory and had slower reaction times, compared to non-widowed participants. Older adults who were widowed found to have slower processing speed compared to younger adults. However, an effect of gender was not found. These findings were only significant when protective and risk factors were excluded from the analysis. Protective factors strongly predicted personal wellbeing in the sample. The findings supported the notion that conjugal loss is related to greater cognitive decline in older adults, and highlighted areas for further research.

# **Imagine Creativity in Augmented Reality Environments**

**Tae-Jun Lee & Irimi Giannopulu (iCAM, Bond University)**

What makes humanity so unique is the ability to create. From the contributions of Einstein in relative physics, to van Gogh's *The Starry Night*, creativity is certainly what makes life worth living. Of three major forms of creativity (i.e., artistic creativity, divergent thinking and insight), artistic creativity has received the least attention and research. There is irony in this as artistic creativity is considered to be the more ecologically valid form of creativity. The scientific approach just started to explore the potential of Augmented Reality (AR). Some research has been applied to assist surgeons intra-operatively, some others have indicated that AR can be used in creativity but, to our knowledge, research examining mental imagery creativity in AR via central and peripheral neural responses is sparse. The aim of the present study was to analyse the physiological responses of mental imagery of art installations in AR. It seems that the neural correlates of mental imagery creativity involved in augmented reality environments are similar with those involved in real environments. As such, the current research provides insight into the role of AR in creative mental imagery, an unexplored domain.

The poster papers are presented in two sessions, with session A on the Friday Evening (5.45-8.00pm) and Session B on Saturday at lunchtime. However, the Friday evening session will include all available posters giving an overview of those presenting. Presenters are required to be available only in their nominated session (A or B).

### **POSTERS - over two sessions**

#### **Perceptions and Predictors of Cyberbullying Behaviours in an Australian Young Adult Sample**

**Karolina Strozek, Wayne Warburton, & Julian Reid**

As western societies have embraced the digital revolution, various technology-driven problems have arisen, with one of the most concerning being cyberbullying – sending threatening and intimidating digital communications to others. Much of the past research has focused on children/adolescents and has been conducted in countries other than Australia. The current study aimed to identify the prevalence of cyberbullying in an older group - young adults (18-25) - and in the Australian context. Participants were a mix of undergraduate students and respondents from the general population (N = 294), who completed measures of cyberbullying behaviour and cognitive acceptance of cyberbullying, as well as beliefs around power-equalisation and fear of reprisals within the cyberbullying context. Over half of the sample reported having engaged in cyberbullying behaviours. There was a significant but weak positive correlation between cyberbullying and not fearing reprisal ( $r=.14, p=.017$ ), and moderate positive correlations between cyberbullying and believing cyberbullying is acceptable ( $r=.48, p<.001$ ) and believing the online context could equalise a power differential between people ( $r=.36, p<.001$ ). Neither age nor average daily hours of media use were significant predictors. However, regression analyses indicated that cognitive acceptance and power-equaliser were the strongest predictors of cyberbullying. The implications of these findings are discussed.

#### **An immature defence style: A mediator between alexithymia and somatisation?**

**Hawaa Dajan & Zahra Izadhikah**

Alexithymia is defined as the inability to identify and describe emotions. It is linked to the psychological phenomenon somatisation, where individuals experience physical symptoms that cannot be medically explained. Previous research suggests that alexithymia leads to an amplification of physical sensations as well as inefficient emotion regulation and therefore increased susceptibility to somatization. We believe that an immature defence style might be a mediator between alexithymia and somatization. An immature defence style consists of automatic psychological mechanisms that help avoid uncomfortable emotions by altering the perception of reality to reduce changes in the inner and outer environment. This study investigated if an immature defence style is a mediator in the relationship between alexithymia and somatization as no other study has done so in the past, to the researcher's knowledge. The study's sample included Australian residents 18 years or older comprising of USQ psychology and counselling students and people from the general community. Participants completed an online survey with questions from a demographic questionnaire, Screening for Somatoform Symptoms (SOMS-7), 40-item Defence Style Questionnaire (DSQ-40) and Toronto Alexithymia Scale (TAS-20). Results show a positive correlation and a significant relationship between somatization, alexithymia and immature defence style as well as partial mediation by an immature defence style. It is believed that in addition to the numerous factors contributing to somatisation, immature defence style may be used due to the emotional helplessness of alexithymia resulting in ill-expressed emotions and anxieties being transformed into physical symptoms.

# **Neural Expression of Creativity in Real and Augmented Reality Environments**

Frangos A, Lee T.J, To D, McFadyen J, Baumann O, & Giannopulu I

Bond University and University of Queensland

Bridging brain activity and technology, the proposed research examines people's creative expressions through building an installation in a 3D augmented reality environment. It is strongly motivated to offer a nuanced understanding of the relationship between brain activities and creative expressions. Through broadening people's perceptual experiences and even creating new experiential dimensions that are previously unexplored, the new virtual technology would substantially benefit brain functioning. By being "present" and "immersive" in a virtual environment, to express creativity, our assumption was that a wide network of brain regions would be mobilized in healthy participants. Wearing a Hololens (HMD) and a mobita 32-channel wireless EEG, 14 participants aged 25 years old in average have been invited to perform three conditions, all randomised, using common and uncommon objects: (a) imagine building an installation in the real environment (b) imagine building an installation in augmented reality, and (c) execute an installation in augmented reality. All participants were given 2.30 minutes to perform the task as instructed for both objects. Preliminary EEG data revealed similar alpha, beta and theta brain activities between common and uncommon objects within each condition in left and right parietal and frontal lobes. Moreover, alpha, beta and theta activities were similar in right and left parietal and frontal lobes when participants were invited to imagine creating an installation in real and virtual environments, but they were significantly higher in left than in right parietal and frontal lobes when an installation was virtually executed. In this light, our findings would be consistent with the idea that different styles of creativity underline some common neurobiological processes. By charting the neural basis of creativity in the virtual reality, it would become possible to understand why some people are more creative than others and eventually to understand how to make people more creative.

## **Other posters:**

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(Becky Black)

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(Tanya Balakumar, Toukhsati, & Timora)

**Attitudes of Australian Mental Health Professionals and the General Public Toward Mental Illness**  
(Arabella Smallhorn)

**Personality (CSE) and mindset (PsyCap) in employee wellbeing**  
(Annita Gibson)

**Towards the development of a new cross-cultural well-being instrument**  
(Camille Rault, Mark Bahr, & Richard Hicks)

**Emotion Freedom Technique two-year follow-up on the effect of 'tapping' on food craving**  
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