

# Australian Conference on Personality and Individual

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

Travelodge Hotel Newcastle, 28 and 29 November 2014 Pre-Conference Workshop, Thursday 27 November 2014

Convenors: Miles Bore and Don Munro

### **PROGRAM AND ABSTRACTS**

Faculty of Science and IT





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#### **WELCOME**

For some 14 years this enjoyable and stimulating annual conference has been made up of people with a passion for personality and individual differences psychology: researchers, practitioners and (most importantly) students. Whether an old ACPID hand or a newby you are of course most warmly welcomed to this year's conference hosted in Newcastle by the University of Newcastle!

#### **Keynote speakers**

We are delighted to advise that Emeritus Professor Gerry Fogarty and Professor Lazar Stankov will be our keynote speakers for the conference. Their addresses will follow lunch on Friday and Saturday.

#### **Presentations and abstracts**

The conference will begin at 9.00am on Friday 28 November, and the closing remarks and annual general meeting will be at 3.50pm on Saturday 29 November.

Three presentation formats will be run:

- Symposia: Consisting of 4 to 5 papers to be presented within 1 hour and 40 minutes including question time.
- Individual papers: 20 minutes including question time.
- Rapid electronic posters: Posters will be presented in dedicated sessions, and will be presented electronically with a three-minute overview followed by a two-minute question time.

#### Workshop

A half-day workshop on Cattell-Horn-Carroll theory based methods of cross-battery cognitive assessment will be held at the Travelodge on Thursday 27 November, 1.30pm to 5.00pm.

#### **Conference dinner**

Our conference dinner will be held at 7pm on Friday 28 November at Silo Restaurant located on Newcastle Harbour. Price includes two courses, great ambiance, views and of course great company.

#### **Getting Around Newcastle**

Fare Free Bus Zone — State Transit buses (that's the blue and white ones) are FREE within the inner city zone along Hunter Street from the Catholic Cathedral to Newcastle Railway Station, and as far south as Bull Street on Darby Street. The fare free zone operates between 7:30am and 6:00pm seven days a week. This is a fantastic way to get around the inner city for free without the hassles of driving and parking.

Normal fares apply for travel outside of this zone. Ask the bus driver if you are unsure of the route or destination. Timetables for the Newcastle Buses are available from <a href="http://www.newcastlebuses.info">http://www.newcastlebuses.info</a>

#### **Parking**

If you are traveling to Newcastle by car there is parking available the Travelodge Hotel.

#### **About Newcastle**

Newcastle is Australia's second oldest city and has served as a harsh penal outpost, 'steel city' and industrial centre, and (now) the largest coal-exporting port in the world. It reaches out to the sea, creating Australia's only city centre bounded by pristine beaches and an active working harbour. From our intriguing 200 year story has arisen a dynamic city of contrasts. Discover a port city in transition and delight in a mixture of the raw and refined. Working wharves are becoming places of play; the city hums with a vibrant arts culture and an emerging food scene is evident. Some things need never change - the surf is still world class, the pace remains relaxed and the friendly locals are proud of their city.

#### **Eating and drinking in Newcastle**

There are two "eat streets" in Newcastle:

- 1. Darby Street, about 15 minutes walk from the conference hotel, just after the City Hall, Civic Park and the Art Gallery, and
- 2. Beaumont Street, which is west of the conference centre and further away (known for Italian restaurants). Also, Hunter Street Mall and the east end of the city is becoming known for its cafés and small restaurants.

In addition, a newer restaurant and bar strip is the Boardwalk, on the harbour quite near the conference hotel — but you have to go east along Hunter Street to the Merewether Street railway crossing to get there, or cross the bridge at Wickham Railway station (350 metres west of the hotel). Either way, it's about a 15-20 minutes walk.

#### Recommended (from many):

- **Ground Floor Café** corner of Hunter Street Mall and Newcomen Street this one comes with a personal recommendation by Don, who breakfast there with his family every weekend!
- Estabar 61 Shortland Esplanade Newcastle perfect spot for breakfast with an ocean view
- One Penny Black Espresso Bar corner of Hunter Street Mall and Wolfe Street— trendy local spot with great coffee
- **Scotties** 36 Scott Street Newcastle East simple, fresh seafood and good coffee
- Napoli Central Pizza Bar 173 King Street Newcastle traditional wood-fired pizza
- Bocados Spanish Kitchen 25 King Street Newcastle a tasty selection of seasonal tapas
- Casa de Loco 10 Pacific Street Newcastle East authentic modern Mexican food and cocktails
- Merewether Surfhouse 5 Henderson Parade Merewether offering \$10 pizzas to fine dining with an amazing view over Merewether Beach
- Rustica 2/1 King Street Newcastle East North African cuisine that's great for sharing, overlooking Newcastle Beach
- The Grain Store 64-66 Scott Street Newcastle East a revamped warehouse offering the largest range of Australian craft beer and classic diner-inspired meals
- 5 Sawyers 115 Darby Street Cooks Hill a local favourite for craft beer and cocktails
- The Hop Factory 102 Darby Street Cooks Hill craft beer and burgers
- The Landing Bar & Kitchen 1 Honeysuckle Drive Newcastle relaxed meals and drinks on the harbour
- The Edwards Bar 148 Parry Street Newcastle West a café, restaurant, bar, creative space and coin-op laundry, open from 7 to midnight most days

#### Things to do in Newcastle

Walk the Foreshore — an excellent walk or jog for your morning or evening exercise is to go down to the harbour foreshore (via either the Merewether Street railway crossing or the bridge at Wickham Station) and head east towards Nobby's (the lighthouse station). There is a wide walkway all the way, passing numerous historic and modern points of interest. From the Foreshore Park there is an excellent view of the Anglican Cathedral on the hill and the city with its mix of old and new, especially in the morning sunshine. Allow about an hour there and back at a steady walking pace. Or linger and watch the ships in the harbour (some of the world's largest bulk carriers come and go). Or continue past Nobby's and out to the end of the breakwater (add half an hour).

**Return by Newcastle Beach** — continue past Nobby's Beach and round to the Ocean Baths and Newcastle Beach, then through the Hunter Street Mall (lots of cafés on the way) and back along Hunter Street or King Street. Add half an hour to the Foreshore walk, or continue along Newcastle Beach and up to King Edward Park and The Hill (interesting relics of WWII coastal defences, and The Bogey Hole, dug from the rocks by convicts for the pleasure of an early Commandant), then back down the steep hill to Hunter Street Mall and King or Hunter Streets. Add a further half hour.

**Wander the streets** — Urban Walkabout has compiled a number of other walks around Newcastle.

**Bring your surfboard** — there is no shortage of surf.

**Visit Newcastle Museum and the Maritime Centre** (both in the Honeysuckle area near the Boardwalk restaurants), and Fort Scratchley (near Nobby's) – the latter was built in the late 1800s to defend against Russia! On the top are the naval guns that fired on a Japanese submarine that shelled Newcastle in June 1942.

Visit the Northern Regional Art Gallery (opposite the City Hall and about a 10 minute walk from the Travelodge Hotel) – this is one of the best regional galleries in Australia, in a city that is known for its artistic activities and talent. Special exhibitions at the time of the conference include the Kilgour Prize for figurative and portrait painting, and a new exhibition by Patricia Paccinini (Australian sculptor) opening on Saturday 29th. There are several other public and private galleries in the area, including Watt Space, which is the University of Newcastle's student art gallery that hosts exhibitions supporting emerging student artists and is open to the public from 11-5pm Wednesday to Sunday. It's in Auckland St, in the University Law and Commerce building just before you get to the City Hall.

**Visit the local shops** — head to either Darby Street or the Hunter Mall to explore local boutiques and meet the homegrown designers. The city has tried to renew the central area in recent months by allowing art and craft startups to occupy vacant shops cheaply. For everyday things Marketown is a fairly comprehensive shopping centre directly opposite the Travelodge, with both Coles and Woolworths and their partners, cafés, chemists, etc., (even a McDonalds!).

If you have a car (or hire one) there are several day trips from Newcastle — up the Hunter Valley to the vineyards, cellar door tastings, and restaurants, to Port Stevens resorts and dolphin watching (no whales in November, regrettably), to Barrington Tops National Park, etc.

**Bushwalking in Glenrock** — only ten minutes drive from the Newcastle city centre, Glenrock State Conservation Area is a beautiful coastal rainforest.

**Ride the Fernleigh track** — A historic rail that is now a cycleway linking Newcastle and Lake Macquarie. The 15km track passes through beautiful bushland, wetland forests, and coastal heaths. Bikes can be hired from \$20 for 1 hour or \$40 for 1 day through Boomerang Bike Hire.

**Farmers and Makers Market** — held Newcastle Showground most Sundays from 8-1pm, the Farmers and Makers Market brings together local farmers and producers. Among the gourmet food products you will find fresh pastas, cheese, pastries, boutique wines and much more.

#### MAP OF NEWCASTLE CENTRAL AREA WITH PLACES YOU NEED TO KNOW

- 1. Travelodge Hotel (conference venue)
- 2. Ibis Hotel
- 3. Boardwalk restaurant, bars, maritime museum
- 4. Crowne Plazza Hotel

- 5. Art Gallery, Town Hall, etc
- 6. Newcastle Railway Station
- 7. Wickham Railway Station with bridge over railway
- 8. Merewether Street railway crossing (access to harbour side)



#### **PROGRAM: FRIDAY 28 NOVEMBER**

Friday	Room 1	Room 2	Room 3
9.00 - 9.10	Opening		
9.10 to 10.30	Individual Papers:  Dark Triad 1	Individual Papers:  Mental Health 1	Individual Papers: Organisational 1
	Bader, C. Thin-slice judgments of psychopathy	Alba, B. Hierarchical orientation and well-being	Brown, L. E. R. A comparison of maximum and typical- performance emotion management ability
	Jonason, P. K. Valuing myself over others: The Dark Triad traits and moral and social values	Caltabiano, N. J., & Wells, T. Individual differences in child sexual abuse attributions	Houlcroft, L., Bore, M., & Munro, M. Difficult employees: Through the narcissistic looking glass
	Jordan, R., & Tiliopoulos, N. The Dark Triad, religiosity, and altruism: Can Christian piety outweigh Dark Triad self-centredness?	Huuskes, L. M., Leeson, P., Heaven, P. C. L., Ciarrochi, J., & Caltabiano, N. Are differences in religious trajectories related to psychological outcomes?	Munro, D., Adam, J., Bore, M., & Powis, D. Prediction of medical school performance by cognitive and non-cognitive assessments
	Leonards, C., & Mahmut, M. Two approaches to differentiating the Dark Triad: Investigating empathy and olfactory ability in psychopathy, Narcissism, and Machiavellianism	Jiang, Y., Smillie, L., & Tiliopoulos, N. Adult attachment, reinforcement sensitivity, and resting EEG neural correlates	Zhao, K., & Smillie, L. D. Can interpersonal traits explain prosocial behaviours in economic bargaining games?  Evidence from two person-situation studies
10.30 to 11.00		Morning Tea	
11.00 to 12.40	Symposium 1:  Exploring the fifth dimension: Causes and consequences of Openness/Intellect	Individual Papers:  Mental Health 2	Individual Papers: Organisational 2
	Perry, R. Big-Five Openness shapes judgements of social threat	Tarabay C., Warburton, W. A., & Gentile, D. A. The long-term effects of exposure to violent and aggressive song lyrics	O'Connor, P. J. The role of personality in creativity training success: Investigating the differential effect of relaxation and ideational skills training on creative performance for introverts and extraverts
	Douglas, H.E., Bore, M., & Munro, D. An exploration of the correlates of Openness and Intellect	Winning, A. P., & Boag, S. G. Does brief mindfulness training increase empathy? The role of personality	Stone, S.J., & Metcalf, L. Investigating the validity of complexity leadership: The CLQ, is it new?
	Varsavsky, V., Avery, R. E., Perry, R., & Smillie, L. D. Openness/Intellect and working memory engagement	Bhullar, N. "Taking care of others, Taking care of me": Activity restriction and carer mental health	Gardiner, E. Too much of a good thing? The dangers of the politically skilled Maverick
	Antinori, A., Smillie., L. D., & Carter, O. Do individuals high in Openness see the world differently? Openness and binocular rivalry	Soutter, A. R. B., & Hitchens, M. Character identification and flow in video games	
	Smillie, L. D., Antinori, A., & Carter, O. Openness and representational pluralism: A novel framework and a preliminary investigation		
12.40 to 1.30	Lunch		
1.30 to 2.30	Key Note Address: Professor Lazar Stankov		

		Towards a psychological atlas of the world	
2.30 to 3.30	Individual Papers:  Abilities	Individual Papers:  Psychometrics 1	Rapid Electronic Poster Session 1
	Burns, N.R., Urry, K., & Baetu, I. Implicit learning: The Serial Reaction Time Task and intelligence	Gomez, R., Vance, A., & Watson, S. Structure of the Wechsler Intelligence Scale for Children - Fourth Edition in a group of children with low IQ	Macoun, A. M., & Sweller, N. Effects of gesture on narrative comprehension     Scott, M., Caltabiano, M.L., & Sinnamon, G.
	Gerber, J.P. Rejection sensitivity influences perceptions of the Mona Lisa using the reverse correlation method	Perera, H.N. Harnessing the power and flexibility of exploratory structural equation modeling for the analysis of multidimensional personality item response data	Validation of the tripartite model of anxiety and depression using the PANAS and PH-PANAS-C measures: Exploring age and gender differences  3. Goodwin, B. C. Preference for supernormal stimuli
	Gessler, D., & Costa, D. Individual differences in the dissociation between self-reported cognitive function and corresponding neuropsychological test scores	Waschl, N., Burns, N., Nettelbeck, T., & Baetu, I. Seeing reason: Sex differences, strategies and performance on the Raven's Progressive Matrices	predicted by the two-factor model of impulsivity 4. Andrews, L., & Bore, M. The role of Empathy in predicting sensitivity to images of nurturance 5. Russell, K.A., & Bore, M. Working with adolescents who self-harm: Interventions and clinician resilience 6. Bonson, S., & Poropat, A. Visible body modification: A systematic review and future directions for research
3.30 to 3.50	Afternoon Tea		
3.50 to 5.10	Symposium 2: The predictors of individual differences in confidence and how it influences our behaviour  Burns, B. D., & Luo, L. Effects of culture and number of options on over/under confidence	Individual Papers: Psychometrics 2  Watson, S., Gomez, R., & Gullone, E. TOSCA-A: Factor structure, external validity, and measurement	
	Stankov, L., & Lee, Y. Overconfidence across world regions	invariance across sex in a group of adolescents Watt, D.M., Hopkinson, L., & Roodenburg, J. Is transliteration enough: Using mixed methods to	
		semantically and psychometrically enhance a child personality scale	
	Jackson, S. A., & Kleitman, S. How individual	Lee, J. Measurement issues and some potential	
	differences in decision making depend on cognition, monitoring, and control	solutions in large-scale assessment	
5.30	monitoring, and control  Kleitman, S., Jackson, S. A., & Aidman, E. Low cognitive load and lack of arousal impede practice effects on executive functioning, metacognitive confidence, and	Informal drinks at Honeysuckle Hotel  Conference Dinner at Silo Restaurant	

#### **PROGRAM: SATURDAY 29 NOVEMBER**

Saturday	Room 1	Room 2	Room 3	
9.10 -10.30	Symposium 3: Qualitative, quantitative, and mixed-methods person-centred validation of the Ways of Thinking Model of cognitive style	Individual Papers:  Dark Triad 2		
	Roodenburg, J. Cognitive Style and the Ways of Thinking Model	Richardson, E.N. Beneath the defensive mask of a dark mind: The inner processes of the Dark Triad		
	Costello, S., & Roodenburg, J. Quantitative multi- method analysis of Ways of Thinking	Middleton, J.P. Gimme dat ding: Dietary opportunism in the Dark Triad traits		
	Roodenburg, E. M., & Roodenburg, J. A phenomenological approach to a person centred thinking typology	Girgis, M. The confluence model: Integrating rape culture and the Dark Triad		
	Costello, S., Roodenburg, E. M., & Roodenburg, J. A Mixed method approach to Ways of Thinking	Nolland, M. Are you willing to sacrifice proximity in favour of a better quality mate?		
10.30 to 11.00	Morning Tea			
11.00 to 12.40	Individual Papers: Theory	Individual Papers:  Affect 1	Rapid Electronic Poster Session 2	
	Marsh, T. The Bottom-Up Approach to psychological assessment: An adaptationist perspective on abilities and traits	Barford, K.A., Pope, J.B., Harlow, T.F., & Hudson, E.P. Predicting empathy and prosocial behaviour: Who cares and when?	Piercy, D. Compared to her? Does social comparison target differentiate the effects on self-concept for mothers of pre-school children?	
	Boag, S. Personality assessment and construct validity	Beath, A. P., Jones, M. P., & Fitness, J. With great effort comes great reward: Trait EI differentially moderates the impact of reappraisal on physiological stress	Baker, C.A., & Bull, A. Dress for success: How skirt length influences perceptions of women's competence     Hitzeman, C., & Wastell, C. Are atheists implicit	
	Nowland, T.M. The hidden factors: Latent variables for personality and individual differences assessment	Loxton, N.J., & Bothma, A. Does negative mood really matter?	theists?  4. Wallace, M. & Hudson, J. L. The Metacognitive Model of Anxiety and Depression in male youth	
	Poropat, A. E. A. Cronbachian model for integrating personality theories	Maier, A.R., & Smillie, L. D. Understanding the impact of extraverted behaviour on positive affect: Does social well-being, social power, and left frontal asymmetry play a role?	5. Dargue, N.M. & Sweller, N. Developing narrative comprehension: The role of gesture in child an adult comprehension	
	Cole, A.B. Are "personality factors" any more than semantic artefacts or projections of raters' implicit theories of personality?	Teunisse, A. K. Is credulity related to emotional intelligence and agreeableness, and can cognitive busyness influence it?		
12.40 to 1.30	Lunch			

1.30 to 2.30	Key Note Address: <b>Emeritus Professor Gerry Fogarty</b> Exploring the sources of human error in high risk industries		
2.30 to 3.30	Individual Papers:  Student Life	Individual Papers:  Affect 2	
	Clarke, I. E., & MacCann, C. The role of self-concept in self-handicapping: Self-esteem versus self- concept stability	Tiffen, L., & Bore, M. Discrete and dimensional: The categorization of emotional images	
	Hicks, R.E., Wu, F., & Habelrih, E. Qualities of <i>effective</i> procrastinators among university students	Boer, A., & Bore, M. Development of a Subjective Sexual Arousal subscale for the Affective Neuroscience Personality Scale	
	Kim, L., & MacCann, C. Teacher personality matters: Teacher personality facets predict student outcomes	Bore, M., Andrews, L., Boer, A., & Tiffen, L. Trait activation: The influence of personality in the ratings of affective image stimuli	
3.30 to 3.50	Afternoon Tea		
3.50 to 4.30	Closing and AGM: All most welcome		

#### **KEYNOTE ADDRESSES**

1.30pm, Friday 28 November, Room 1
Towards a Psychological Atlas of the World
Lazar Stankov

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Over the past 10 years much of my work has been in the area of cross-cultural psychology. My interest was in studying cross-cultural differences in measures of non-cognitive psychological constructs – i.e., personality, values, social attitudes, axioms and norms. In the main part of my talk I shall summarize our recent findings based on close to 9000 participants from 33 countries. Traditional dimensional analyses (i.e., EFA and CFA) and mixture modeling (Latent Profile Analysis) of these data suggest that the main sources of cross-cultural differences are reflected in a broadly defined liberalism/conservatism dimension. I shall identify three groups of societies – i.e., "psychological continents" – that appear to exist in the world today. In the second part of my talk I shall comment on recent individual differences work in areas that were of interest to me in the past.

#### 1.30pm, Saturday 29 November, Room 1

Exploring the sources of human error in high risk industries Gerry Fogarty

University of Southern Queensland gerry.fogarty@usq.edu.au

Until recently, the subject of human error has struggled to gain a foothold in the discipline of psychology. Spearman devoted a paper to the topic in 1928 and challenged psychologists to make error one of the principal areas of study but that challenge was not accepted until a small number of psychologists began studying human-machine interactions during the Second World War. Towards the end of the last century, a series of catastrophic events in high risk industries caused, in part, by human errors captured the attention of psychologists with an interest in human factors, a field of psychology that draws heavily upon individual differences literature and methodology. I was one of those psychologists. In this presentation, I will sketch the background to my involvement in human factors research and describe the various studies I have conducted on the subject of human error in aviation, medicine, mining, and construction. In the course of these studies, I have been particularly interested in disentangling the effects of individual and organisational factors on errors and other safety behaviours. I will close by sharing my thoughts on the pros and cons of engaging in applied research.

#### **SYMPOSIUM 1**

Exploring the fifth dimension: Causes and consequences of Openness/Intellect
Convenors: Luke D. Smillie (University of Melbourne) and Kirill Fayn (University of Sydney)

Openness/Intellect is arguably the most controversial basic trait domain within the Big Five framework. It was not anticipated by theory, has proven troublesome to conceptualise, and is linked with constructs that have traditionally fallen outside of the sphere of personality (i.e., cognitive ability). For reasons such as these personality psychologists were slow to accept the scientific legitimacy of Openness/Intellect. Today, however, this troubled past adds to the fascination of this construct: Openness/Intellect represents an exciting, relatively unchartered territory in the personality landscape. In this symposium, five speakers will explore different elements of this controversial fifth dimension of personality. These talks will span the links that Openness/Intellect has with interpersonal processes (Perry), values and interests (Douglas et al.), and basic aspects of cognition (Varsavsky et al; Antinori et al., Smillie et al.).

Big-Five Openness shapes judgments of social threat Perry, R.

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A motivated social cognition perspective suggests that differences in Openness reflect a tendency for individuals low in Openness to seize on the most readily available information (typically normative majority-group values) and then freeze on this information in the face of alternative or disconfirming information. The present study adapts a classic anchoring and adjustment paradigm (Tversky & Kahneman, 1974) and shows that Openness interacts with exposure to information about safety and threat to shape judgments of societal threat and danger. Undergraduate students (n = 146; 77% female, mean age = 21 years) completed a manipulated (i.e., anchored) and a standard measure of social worldviews. Those low in Openness were more sensitive to information about the proportion of dangerous and threatening people in society. Open-minded people may be more receptive to information in general, however the present findings suggests that being closed-minded increases the tendency to attend to information that is threat-relevant.

# An exploration of the correlates of Openness and Intellect Douglas, H.E., Bore, M., & Munro, D.

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Openness and Intellect are two Aspects of the broader trait Openness/Intellect (O/I; DeYoung, Quilty & Peterson, 2007) characterised by cognitive exploration. However, limited research has investigated their distinct correlates. This study sought to provide construct validity evidence for Openness and Intellect aspects. Participants were 893 undergraduate students (Studies 1 and 2) and working adults (Study 3) who completed an online survey containing measures of O/I, Major Life Goals, Schwartz's Values (Schwartz & Bilsky, 1987), and Holland's (1959) vocational Interests. Openness yielded significant positive correlations with Artistic Interests, Universalism Values, and Aesthetic Goals in all three samples. It was also positively associated with Self-Direction Values and negatively with Economic Goals in both undergraduate samples. In contrast, Intellect was significantly and positively related to Investigative Interests, in Study 1 only, and negatively with Tradition, Power and Security Values. The implications of these findings for the validity of the aspects of Openness and Intellect are discussed.

Openness/Intellect and working memory engagement Varsavsky, V., Avery, R. E., Perry, R., & Smillie, L. D.

University of Melbourne; University of Surrey, UK. <a href="https://www.news.numers.com/www.news.numers.com/www.news.numers.com/www.news.numers.com/www.news.numers.com/www.news.numers.com/www.numers.co

High scorers on the Intellect aspect of Openness/Intellect (O/I) often perform better on cognitively challenging tasks. This may indicate that Intellect reflects (1) deeper engagement of WM resources; or (2) greater WM capacity. Previous studies investigating these explanations have yielded ambiguous results. The present study (N = 81 undergraduates) distinguishes WM engagement and capacity by using a cognitively challenging primary task that is interleaved with a secondary WM-loading task. It was predicted and found that Intellect moderates the effect of load on primary task performance: Intellect (but not Openness) predicted a greater decline in primary task performance under a high WM load. This suggests that those high on intellect rely strongly on the WM resources that were 'consumed' by the high WM load. This, combined with a non-significant association between Intellect and a test of WM capacity, suggests that WM engagement explains the association between intellect and cognitive performance.

Do individuals high in Openness see the world differently? Openness and binocular rivalry Antinori, A., Smillie., L. D., & Carter, O.

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The personality trait openness is characterised by a strong engagement with perceptual experience. It is unknown, however, whether openness may be related to differences in the functioning of basic perceptual systems. To investigate this, we examined binocular rivalry - a visual phenomenon induced by dychoptically presenting dissimilar images. During rivalry an observer's perceptual experience will oscillate between seeing one of the two stimuli, and a fusion of both stimuli (mix-percept). In Study 1 (N=123) a significant correlation was found between openness and mix-percept (r = .22, p < .05). in study 2, participants (N=60) underwent either a Pleasant or Neutral mood induction using guided imagery. We found that the relation between openness and mix-percept was moderated by mood induction, with individuals high in openness reporting more mix-percept after the Positive-Pleasant condition (b = 5.65, p < .05). Implications for mechanistic theories of openness, and also for binocular rivalry, will be discussed.

Openness and representational pluralism: A novel framework and a preliminary investigation Smillie, L. D., Antinori, A., & Carter, O.

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We present preliminary tests of a novel theoretical framework for Openness/Intellect (O/I). We suggest that individual differences in O/I may emerge from *Representational Pluralism*, i.e., processes facilitating multiple (even *incompatible*) simultaneous mental representations of a stimulus or concept. This framework may help integrate several findings concerning O/I, including studies from this symposium. In a pilot sample of Mechanical Turk Workers (N = 102; 63% female) we examined O/I in relation to descriptions/interpretations of stimuli for which multiple representations were possible: (1) Necker cubes, (2) an ambiguous colour stimulus, and (3) internally inconsistent philosophical paradoxes (e.g., 'what explains everything explains nothing'). As expected, individuals high on O/I rated internally inconsistent philosophical paradoxes as more coherent and interpretable ( $\beta = .52$ , p < .001; ps > .05 for all other trait domains). However, O/I was unrelated to descriptions/interpretations of all other stimuli. Further possibilities for testing *Representational Pluralism* will be discussed.

#### **SYMPOSIUM 2**

The predictors of individual differences in confidence and how it influences our behaviour Convenor: Simon A. Jackson (University of Sydney)

This symposium includes four studies focused on individuals' confidence levels. In all studies, participants provide on-task confidence ratings in relation to answers on cognitive and decision-making measures. Across measures, these ratings provide a reliable index of trait confidence. The presented studies have aimed to investigate what underlies confidence and how it influences our behaviour. The studies by Burns & Luo, and by Stankov & Lee, find cultural and environmental determinants of confidence. The former investigated cultural differences among Australians and various response formats; the latter investigated differences across 33 nations. The studies by Jackson & Kleitman, and Kleitman, Jackson & Aidman, find confidence to be essential for error detection in decision making. The former uses structural equation modelling to investigate confidence and decision changes across different tests; the latter investigated decision changes via changes in confidence and other psychological constructs with repeated practice accompanied by low cognitive workload and/or arousal.

Effects of culture and number of options on over/under confidence Burns, B. D., & Luo, L.

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Greater over-confidence in answers to multiple choice general knowledge questions has been found for people in East Asian countries compared to English-speaking countries. A drawback of this research is difficulty in establishing the equivalence of samples across countries, so we compared students at the same university whose first language was either East Asian, English, or Other. Our earlier research using Chinese speaking students suggested under-confidence; however we had presented questions with four response options rather than two. Therefore here we also manipulated the number of response options. We found that the East Asian group consistently performed worse at a given level of confidence than the other groups, but that they displayed under rather than over-confidence for 4-option items. Thus our results were consistent with findings of greater confidence for people with East Asian roots, but whether this manifests as over-confidence, under-confidence, or better calibration could depend on the question's structure.

# Overconfidence across world regions Stankov, L., & Lee, Y.

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In this paper nine world regions (based on samples from 33 nations) are compared in their performance on a cognitive ability test and confidence ratings obtained from the items of the same test. Our results indicate that differences between the world regions are greater on cognitive ability than they are on confidence ratings. Consequently, overconfidence – i.e., the degree to which people overestimate their performance on cognitive tasks - is pronounced within the world regions that have lower scores on measures of cognitive ability. A less pronounced overconfidence is also present among the high achieving world regions. Our findings support a cognitive hypothesis according to which individuals suffer from illusory superiority if the task is difficult. Thus, a commonly observed overconfidence can be seen as a self-deceiving, probably unconscious, mechanism that cushions a person (and countries) from experiencing negative feelings due to cognitive failures.

How individual differences in decision making depend on cognition, monitoring, and control Jackson, S. A., & Kleitman, S.

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We investigated how individuals' decision behaviour depends on three mechanisms: cognition, monitoring and control. Cognitive test items were used as indicators of cognitive abilities; Confidence ratings attached to each item captured individual differences in monitoring and control. Five reliable patterns of decision behaviour – competence, optimality, decisiveness, recklessness and hesitancy – were obtained via participants (N = 364) selecting between actions such as submitting their answers for marking or not. Structural equation modelling was used to investigate change in these decision variables as a result of cognitive requirements and decision scenario changing across nine tests. Optimal decision behaviour was found to depend crucially on cognition, while the remaining patterns of behaviour depended on monitoring and control. Implications are that reliable individual differences in decision making exist and depend in part on cognition, monitoring and control. Implications include more targeted and effective selection and training in applied contexts such as military operations.

Low cognitive load and lack of arousal impede practice effects on executive functioning, metacognitive confidence, and decision making Kleitman, S., Jackson, S. A., & Aidman, E.

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This study investigated the effects of low cognitive workload and the absence of arousal induced via external physical stimulation (motion) on practice-related improvements in executive control, short-term memory, metacognitive confidence and decision making. Seventy office workers performed low and moderately engaging passenger tasks in two simulated drives and a test battery before, between and after these drives. Participants were assigned to receive motion synchronised with the visual simulation or not. Indicative of typical practice effects, performance significantly improved over the three test blocks. Performance was greatest when motion and moderate workload were present, but declined in the absence of either. Practice also degraded monitoring performance, as participants became more confident in incorrect decisions with each test block. Implications include consideration of cognitive load and arousal as factors responsible for performance decline and targets for the development of interventions/strategies in low load/arousal conditions such as autonomous vehicle operations and highway driving.

#### **SYMPOSIUM 3**

Qualitative, quantitative, and mixed-methods person-centred validation of the Ways of Thinking Model of cognitive style

**Convenor: John Roodenburg (Monash University)** 

Cognitive style is dominated with ability-centred approaches, and a range of disparate models. As a domain varyingly described as a conflation of abilities and personality, there is an urgent need for more research from a personality-centred perspective, but the question is as to how to achieve this without stretching the tent pegs even further. The four papers presented in this symposium show how a model based on the lexical hypothesis taken from personality trait development, has been subsequently refined by a mixed methodology leading to a person rather than variable-centred thinking typology. The first presents an overview and the need for specificity, moving from cognitive to thinking style; the second with a quantitative multi-method analysis; the third with a phenomenological approach; and the final, using an integrated mixed method approach, presents a concordant person centred understanding of individual differences in ways of thinking.

Cognitive style and the Ways of Thinking Model Roodenburg, J.

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This paper briefly surveys the disparate field of personality-centred cognitive style that range from attempts to integrate everything under a broad umbrella of intellectual styles (Zhang, L.-f., & Sternberg, R. J. 2005) to drivers for specific measures such as learning and thinking styles (Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. 2005). The paper goes on to consider making sense of the disparities within style conceptualisation through a framework that differentiates levels of constructs. A schema is presented for ordering concepts from the connotative to denotative, from styles as general organising concepts, through fields of applicability to domain specific and measurable constructs such as ways of thinking (Rayner, S., Roodenburg, J., & Roodenburg, E. 2012.) This schema gives perspective and rationale to focussing on a fine-grained discrimination of individual differences in ways of *thinking*. Further papers in this symposium then focus on complementary methodologies yielding person centred dichotomies.

Quantitative multi-method analysis of Ways of Thinking Costello, S., & Roodenburg, J.

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The field of cognitive style has been described as fractured and lacking instruments of psychometric rigour (Furnham 2001; Sternberg, 2000). Building on the model of cognitive style established by J. Roodenburg (2003, 2006), E. Roodenburg, (2014) developed the Ways of Thinking (WOT) questionnaire. Further refining involved two phases. In the first, samples were collected from three versions of the instrument, and poorly performing items removed, identified using a range of confirmatory methods including Procrustes rotations and IRT. In phase two, a community sample of 672 adults completed a revised instrument. Calibration and replication groups were established and facets subjected to single factor congeneric modelling using AMOS. Of the 22 facets, only three demonstrated less than adequate model fit, with an average reliability across all facets of .78 (range .65-.92). The final instrument offers a robust, psychometrically rigorous and thinking focussed alternative to existing measures of cognitive style.

A phenomenological approach to a person centred thinking typology Roodenburg, E. M., & Roodenburg, J.

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Determining cognitive style constructs has traditionally been the domain of psychometric work. This paper presents a phenomenological approach to exploring individual differences in ways of thinking, resulting in a holistic person-centred typology in contrast to a deconstructed variable-centric view. Nonetheless this typology was found to be concordant with typological facet profiles evident in a parallel psychometric analysis (reported elsewhere in this symposium). The results suggest that individual differences in ways of thinking manifest a significant dichotomy between Realist and Ideaist thinkers.

A mixed method approach to Ways of Thinking Costello, S., Roodenburg, E. M., & Roodenburg, J.

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Higher order factors and hierarchical structures are foundational to the study of individual differences. However higher order factors inevitably explain less variance (often around 60%) than the lower order constructs and have a lower predictive validity (Reynolds and Clark, 2001). By transposing the data matrix, hierarchical structures formed by types of people (rather than composites of variables) can be examined. Using transposed principle components analysis (tPCA) with the Ways of Thinking instrument, higher order types of people were examined. Integrating Roodenburg's (2014) participants linked the results to her qualitative typology thereby allowing for greater explanatory power of the person-centred types. The tPCA method explained 95% of the variance in the data. Using tPCA derived person-centred types, a discriminant function analysis was conducted, which found that 94.3% of cases could be correctly classified according to their Ways of Thinking facet scores. Further research is recommended in refining the person-centred methodology.

#### **INDIVIDUAL PAPERS**

Hierarchical orientation and well-being Alba, B.

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This study examined the relationship between beliefs about status, well-being, and a number of personality variables in a sample of 310 participants. We developed a scale intended to measure hierarchical orientation: how much people believe the world is a hierarchical place. A factor analysis of the items revealed three factors: hierarchy denial, hierarchy acceptance, and hierarchy endorsement. The scale was administered alongside the DASS-21, self-esteem, Social Dominance Orientation, narcissism, hypersensitive narcissism, assertiveness, and the Big Five. Hierarchy denial had moderate positive correlations with depression, anxiety, and stress, whereas hierarchy endorsement had weak negative correlations. Anxiety had slightly stronger correlations with both factors than depression and stress. Hierarchy acceptance did not correlate with any of the DASS subscales. Other notable findings were moderate negative correlations between hierarchy endorsement with SDO and narcissism, and a moderate negative correlation between Openness to Experience and hierarchy denial.

Thin-slice judgments of psychopathy Bader, C.

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Can people detect psychopathy just by seeing a picture of someone? Thirty inmates and medical professionals had their psychopathy scores (PCL:SV) measured and pictures taken. In an online study, participants (n = 111) rated each picture on psychopathy and other variables, and completed an emotion-perception task. A moderate positive correlation between participants' ratings and real PCL scores of the pictured individuals was found (r = .35). Unlike similar research, however, pictures rated high on psychopathy were also rated low on attractiveness (r = -.38) and intelligence (r =-.62). Participants who were better at detecting sad or angry emotions in the emotion-perception task appeared to be better at detecting psychopathy levels of the pictured individuals. Results suggest that psychopathy can be detected in pictures, that it's associated with low attractiveness and intelligence, and that it's better detected by individuals who better detect certain emotions.

Predicting empathy and prosocial behavior: Who cares and when? Barford, K.A., Pope, J.B., Harlow, T.F., & Hudson, E.P.

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Empathy was investigated within tend-and-befriend theory context (Taylor, 2006) in 90 undergraduate women. Prosocialness, situational-anger, behavioral approach system reward-responsiveness (BAS-RR), and reward-drive (BAS-drive) jointly predicted 70.3% of empathy variance. Empathic women are more reward-responsive and may associate prosocialness with reward, but are less driven to pursue rewards and have less situational anger. A second study investigated how individual empathy differences, BAS-RR, and sex influenced prosocialness. Undergraduate men and women were randomly assigned to an exclusion condition, potentially arousing desire for a new social contact, then responded to a story of a crying or not crying woman. Participants responded with significantly more anger after exclusion, regardless of the woman's crying. Regression analyses on helping response suggested empathy significantly moderated exclusion's effect. High empathy and reward-responsive individuals desired to help more after exclusion and, thus, may respond to exclusion stress by befriending, while others may respond with withdrawal or anger.

With great effort comes great reward: Trait EI differentially moderates the impact of reappraisal on physiological stress

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Recent research into cognitive reappraisal has begun to explore sub-types of reappraisal. However, what is missing is a conceptual framework to unify types of reappraising. This paper will start by proposing a new framework for reappraisal that makes the distinction between reappraising the present *situation*, and reappraising the individual's broader *goal*. We will present data that validates this distinction in individuals' common use of reappraisal (Study 1), showing that features of the context impact upon what type of reappraisal individuals use. We will then report results of an experimental stress manipulation where individuals were instructed to use either *situation*- or *goal-focused* reappraisal (Study 2). The benefit of reappraisal on physiological stress response differed greatly between situation- and goal-focused reappraisal, and this difference was moderated by trait emotional intelligence. These results suggest that individuals with greater emotional self-awareness find more complex reappraisals initially more taxing to implement, but end up receiving a greater benefit as a result.

"Taking care of others, Taking care of me": Activity restriction and carer mental health Bhullar, N.

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The current study extends the Activity Restriction Model of the Depressed Affect (Williamson, 1998) to explore the relationship between caregiving role demands and caregiver depression. It specifically investigated the mediating role of restriction of activities in daily routine, personal, and social domains. A community sample (*N*=203) of primary carers of young people with mental illness completed a set of measures assessing caregiving role demands, routine activities, personal control activities, social activities and depression. A multiple mediation analysis revealed that the relationship between caregiving role demands and depressed affect was significantly mediated by restriction of activities in the domains of personal control and social interactions, but not via restriction of routine daily activities. Implications and future research directions are discussed.

# Personality assessment and construct validity Boag, S.

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Personality assessment helps us to predict how people behave under various circumstances or how well a person might perform within certain roles. However, there are reasons to question the supposed 'construct validity' of tests designed to assess various personality attributes including dispositional traits. This paper first discusses a realist account of test validity where validity requires that changes in the attribute are causally related to changes in test scores. The validity of tests of dispositional traits is questionable given problems with traits existing as within-person attributes capable of causing changes in test scores. Additionally, the widespread reliance on Likert-style response formats is then discussed in relation to the assumed quantitative structure of personality attributes. Suggestions for addressing test validity in personality assessment are then discussed in terms of paying greater critical attention to personality theory itself and adopting a realist theory of measurement.

Development of a Subjective Sexual Arousal subscale for the Affective Neuroscience Personality Scale Boer, A., & Bore, M.

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The Affective Neuroscience Personality Scale (ANPS; Davis, Panksepp, & Normansell, 2003) was developed based on seven neuroaffective systems (Panksepp, 1998). However, the Lust system was excluded from the scale. The aim of the present study was to develop a measure of the Lust system based on the broader concept of Subjective Sexual Arousal (SSA). Nineteen self-report SSA items were written and interspersed throughout the ANPS. Together with a measure of the Big 5 personality traits and the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 1997), this scale was completed by 175 first-year psychology students from an Australian university. As hypothesised, male participants yielded higher mean SSA scores. Female, but not male, participant ratings of images from the IAPS were significantly related to their SSA scale scores. The present study represents the first example of a psychometric instrument designed to measure the affective, trait-like nature of Subjective Sexual Arousal.

Trait activation: The influence of personality in the ratings of affective image stimuli Bore, M., Andrews, L., Boer, A., & Tiffen, L.

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Jaak Panksepp's model of seven discrete emotional systems has been the theoretical basis for the development of the Affective Neuroscience Personality Scales (ANPS). This scale measures the affective traits of Care, Play, Seeking, Fear, Anger and Sadness with Boer and Bore (presented at this conference) providing a measure of the seventh emotional system of Lust. To examine the predictive validity of the ANPS we asked participants (n = 175 psychology undergraduates) to complete the ANPS, the Big 5 Aspects Scale and the NACE Scale (narcissism, aloofness, confidence, empathy). Participants then rated the valance and arousal of a selection of International Affective Picture System image stimuli. The findings overall demonstrate that personality is related to the degree to which a person experiences affective stimuli as positive or negative and, to a lesser extent, the degree of arousal reported. The findings are discussed in relation to trait activation theory.

A comparison of maximum and typical-performance emotion management ability Brown, L. E. R.

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Emotion management ability is most frequently assessed with situational judgment tests (SJTs) that can be administered with *maximum-performance* instructions ("What is the best thing to do in this situation?") or typical-performance instructions ("What would you do in this situation?"). The present study aimed to: (a) determine the characteristics of individuals who have a greater tendency to act in accordance with what they consider the most efficacious emotion management strategy; and (b) clarify the predictive superiority of typical-performance emotion management SJTs. Results revealed that conscientious and agreeable individuals were more likely to perform to their maximum emotion management capacity. However, typical-performance SJTs only showed superior prediction of affective outcomes (and not academic outcomes) over and above maximum-performance SJTs. These findings reiterate the importance of distinguishing between maximum and typical-performance response instructions in emotion management SJTs, and reveal implications for organisational selection procedures and emotion management interventions.

Implicit learning: The Serial Reaction Time Task and intelligence Burns, N.R., Urry, K., & Baetu, I.

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The distinction between implicit and explicit learning has informed theories about human intelligence. Serial Reaction Time Tasks (SRTT) dominate implicit learning research but common performance measures derived from SRTT, particularly reaction time (RT) difference scores, may not provide valid measures of learning. We developed a Predictive Sequence Learning Task (PSLT) where performance is assessed via both RT and predictive accuracy. We compared performance of N = 99 adults on SRTT and PSLT and also measured cognitive abilities. RT difference scores on both tasks were generally not related to cognitive abilities. By contrast, ratio RT measure on SRTT and PSLT and accuracy measures on PSLT were related to cognitive abilities. Additionally, accuracy measures indicated an age-related decline in performance on PSLT. The current results were thus inconsistent across different measures within the same tasks despite all being assumed to measure sequence learning. This outcome has implications for past and future research employing SRTT.

# Individual differences in child sexual abuse attributions Caltabiano, N.J., & Wells, T.

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The effects of victim ethnicity, implied by the victim's residential place, and community attachment on blame and responsibility attributions towards child sexual abuse victims, the families and perpetrators was investigated using a survey-embedded experimental design. University students (N = 156) were randomly assigned to one of five vignettes describing a hypothetical child abuse case where a 12-year-old female victim is raped by a family friend where victim residential place (Injinoo, Edge Hill, or unspecified) and type of community attachment (weak, strong, or unspecified) were manipulated in the conditions. No ethnic bias was noted against the Injinoo victim. In the strong community attachment conditions female students attributed more culpability to the parents of the Injinoo victim compared with the parents of the Edge Hill victim. Overall, males were just as pro-victim and anti-perpetrator as females. Males and females similarly perceived the family as culpable for the abuse.

The role of self-concept in self-handicapping: Self-esteem versus self-concept stability Clarke, I. E., & MacCann, C.

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Self-handicapping is the phenomenon by which an individual will create an obstacle for themselves prior to an evaluative task if they anticipate failure. This behaviour occurs in order to weaken the causal link between the actor and an impending negative outcome, and to render any resulting feedback from an evaluative task ambiguous. Self-handicapping is very common among students, and is associated with many negative academic and life outcomes. This study focuses on the role of self-concept in predicting self-handicapping behaviours. In a sample of 391 university undergraduates, it was found that self-concept stability significantly predicted self-handicapping behaviours over the prediction from self-esteem, academic self-concept, and personality. The theoretical implications of this finding will be discussed.

Are "personality factors" any more than semantic artefacts or projections of raters' implicit theories of personality?

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At least since the Character Education Inquiry (Hartshorne & May 1928; Hartshorne, May, & Maller, 1929; Hartshorne, May, & Shuttleworth, 1930) there has been dispute about the construct validity of personality traits and the utility of their measurement. Also, for well over half a century the validity of personality factors derived from behaviour-ratings has been disputed, with a marked lack of satisfactory replicability being an early major concern (Fiske, 1949). Building on the work of Tupes and Christal (1958, 1961), Norman (1961, 1963) identified what might be called the Prototypical Big Five stable replicable personality factors derived from behaviour-ratings -- a simple structure of 20 bipolar traits reduced to 5 orthogonal factors, 4 bipolar trait-rating scales to each factor. Norman's was a major achievement, still inadequately appreciated today. The very stability and replicability of Norman's 20-trait 5-factor model were taken by many as evidence of the model's validity. But what if Norman's big five model, the precursor of modern five factor approaches, can be reproduced from subjects without them rating any persons, or behaviour? Evidence of just how well that can be done is presented.

Too much of a good thing? The dangers of the politically skilled Maverick Gardiner, E.

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The current research investigates whether maverickism predicts unethical behaviour, and whether the maverickism-unethical behaviour relationship is moderated by political skill. In Study 1 (N = 300) we find that individuals high in networking ability and maverickism are less ethical. Results also reveal that individuals in supervisory positions are more likely than those not in supervisory positions to behave unethically. Study 2 results with workers in supervisory positions (N = 106) show that interpersonal influence, apparent sincerity and networking ability all moderate the maverickism-unethical behaviour relationship. Interpreting these results suggests that when combined with maverickism, political skill encourages rather than reduces the breaching of ethical norms. This research also provides initial evidence that political skill may differentially predict unethical behaviour.

Rejection sensitivity influences perceptions of the Mona Lisa using the reverse correlation method Gerber, J. P.

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This paper provides empirical evidence that perceptions of the Mona Lisa are determined by the personality and experiences of the perceiver. The Mona Lisa has long been considered a masterpiece of ambiguous artistic expression, possibly due to the effect of Da Vinci's *sfumato* technique on peripheral vision. A further source of the ambiguity may be state and trait levels of felt rejection that perceivers have when viewing the Mona Lisa. To test this idea, 48 Mturk participants completed a reverse correlation image classification task after writing about a memory of inclusion or exclusion. Their level of rejection sensitivity was also measured. The images chosen (and created) by participants differed significantly by level of rejection sensitivity and by exclusion condition. Implications of these findings for perceptual accounts of personality will be discussed.

Individual differences in the dissociation between self-reported cognitive function and corresponding neuropsychological test scores

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In a subset of cancer survivors, chemotherapy-related cognitive impairment persists beyond the completion of chemotherapy. While neuropsychological tests assess objective cognitive function (CF), one self-report questionnaire, FACT-Cog, has been used to capture perceived CF. However, subjective ratings are typically weakly associated with objective CF. To investigate this, we proposed and conducted a multivariate predictor model in path analysis of subjective CF in a general population, using predictor variables of Self-Efficacy, Somatosensory Amplification and Mood. Findings revealed self-efficacy as a positive predictor of every cognitive domain except cognitive abilities. Self-efficacy moderated the relationship between objective and subjective concentration; somatosensory amplification negatively predicted subjective concentration, memory and overall CF; higher levels of stress predicted higher ratings of subjective verbal ability and overall CF. Depression negatively predicted perceived cognitive abilities. These findings frame further research in subjective CF, implications for the FACT-Cog instrument, and the design of cognitive rehabilitation interventions in cancer populations.

The confluence model: Integrating rape culture and the Dark Triad Girgis, M.

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In regards to the etiology of rape, the confluence model integrates the feminist perspective within the evolutionary framework. The evolutionary perspective suggests rape is a byproduct of evolved adaptions, these byproducts are associated with the Dark Triad traits (i.e. narcissism, psychopathy, and Machiavellianism). While the feminist perspective suggests rape myths and empathy for rapists creates a rape culture which facilitates rape. The study (N = 250) experimentally examined the relationship between the Dark Triad traits and rape culture by priming participants with female superiority, male superiority or egalitarianism. It was hypothesized high scores on the Dark Triad traits would be associated with increased rape myth acceptance. Additionally, those primed with male superiority would have a greater acceptance of rape myths and empathy for rapists, irrespective of high scores on the Dark Triad traits. The study only found high psychoticism was associated with a greater acceptance of rape myths and empathy for rapists.

Structure of the Wechsler Intelligence Scale for Children-Fourth Edition in a group of children with low IQ Gomez, R., Vance, A., & Watson, S.

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The study used confirmatory factor analysis procedures to examine the applicability of the one-factor model, the first-order factor model, the higher order factor model, and the bifactor model of the ten WISC–IV core subtests in a group of 269 clinic-referred children (75.9% males), aged six-to-sixteen-year-old, with low Full Scale IQ scores (FSIQ  $\leq$  79). The findings showed most support for the bifactor model. Although the bifactor model showed comparable or higher variances in the specific and general factor for the Verbal Comprehension, Perceptual Reasoning and Processing Speed factors, the subscales for these factors and the subscale for Working Memory showed insufficient reliabilities for their meaningful interpretation. The findings indicate that for children with low IQ scores, the FSIQ should be favored over the subscale index scores.

Qualities of *effective* procrastinators among university students Hicks, R.E., Wu, F., & Habelrih, E.

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Many students (and many others) procrastinate; and some apparently do so effectively! They meet their deadlines and are successful. Recent research suggests they would be active (adaptive) procrastinators and not passive procrastinators as normally meant when referring to procrastination (cf., Chu & Choi, 2005). We examined this distinction among university students and also linked the concepts with well-being (as demonstrated in the Psychological Capital Questionnaire assessing self-efficacy, optimism, goal-orientated hope and resilience) and with perfectionistic attitudes (adaptive and maladaptive). We found that 'successful procrastinators' could be identified as having associated qualities predicting active rather than passive procrastination: these qualities included a strong sprinkling of 'goal-directed hope' (in psychological capital) and strong personal standards (related to 'adaptive perfectionism')! The issue of whether active, successful procrastination is in reality 'procrastination' is addressed but the distinction between active and passive procrastination appears tenable.

Difficult employees: Through the narcissistic looking glass Houlcroft, L., Bore, M., & Munro, M.

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We are often required to deal with difficult employees whose behaviours can pose psychological and physical health hazards to organisations and individuals within them. Research shows that narcissistic qualities are commonly associated with difficult behaviour in the workplace. A better understanding of narcissism may therefore help us to more effectively manage difficult employees. The research sought to explore the psychological characteristics of difficult employees by examining the perceptions of their coworkers using the recently developed Arrogant-Shy-Psychopathic Narcissism (ASP-N) scale. As well as distinguishing between three expressions of narcissism, the results indicated that narcissistic employees are as likely to be found in the public as the private sector and in small as large organisations across a number of countries. Interestingly, the difficult employee's position with organisation affected the perception of narcissistic tendencies. The research offers initial insight into three expressions of narcissism in the workplace and provides preliminary support for a tool that may better identify difficult employees.

Are differences in religious trajectories related to psychological outcomes? Huuskes, L. M., Leeson, P., Heaven, P. C. L., Ciarrochi, J., & Caltabiano, N.

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Relatively few studies have examined longitudinal relationships between adolescent religiousness sentiment and positive adjustment. The present study sought to assess whether changes in religious values were related to domains of subjective well-being (emotional, psychological, social) over the first four years of the Australian Character Study. Participants included 2070 students aged 13-14 years (2010), followed up to 16-17 years (2013). Using growth mixture models, we identified four distinct trajectories (classes) of religious values: High, Average, Low, and Low-Stable. All classes had declining religious values, except Low-Stable. Higher parental support predicted membership of High and Average classes; with members of these classes also more likely to have high versus low scores on outcome variables at time 4. Low-Stable religious values however, were related to improved subjective well-being at time 4, compared to low, declining religious values. Implications of these findings for religious development and its relation to adolescent well-being will be discussed.

Adult attachment, reinforcement sensitivity and resting EEG neural correlates Jiang, Y., Smillie, L., & Tiliopoulos, N.

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Both attachment theory and the revised reinforcement sensitivity theory describe biobehavioural regulatory systems that involve approach and avoidance tendencies. Individual differences in approach motivation have been linked to EEG-derived neural markers including relative left frontal resting brain activity and relatively greater posterior (vs frontal) delta and theta activity. Less consistently, avoidance tendencies have been associated with relative right frontal resting brain activity. In this study, 69 right-handed paid volunteers recruited via study advertisements placed around the University of Melbourne completed self-report measures of adult attachment and reinforcement sensitivity, as well as eight minutes of resting EEG. BAS-drive was associated with relative left frontal activity, while FFFS-flight, FFFS-freeze, BIS-anxiety, trait anxiety, and attachment anxiety were associated with relative right frontal activity. No significant links with posterior vs frontal theta and delta activity were found. The results suggest some convergent patterns between approach- and avoidance-oriented traits and the neural markers.

Valuing myself over others: The Dark Triad traits and moral and social values Jonason, P. K.

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In samples from America and Germany (N = 1,353), we examined how the Dark Triad traits related to different value systems as measured by Moral Foundations and Social Values. Psychopathy was linked to diminished concerns for all Moral Foundations, Machiavellianism was linked to a moral flexibility, and narcissism was linked to a socially desirable form of morality. Machiavellianism and psychopathy scores were associated with a devaluing of collective interests, whereas narcissism was associated with a valuing of individual interests through the value of Self-Enhancement. Individual differences in a variety of values mediated part of the sex differences in the Dark Triad traits. We contend that what makes the Dark Triad traits unique and interesting is that they share a unique complex of values that might run counter to societal expectations for selflessness.

The Dark Triad, religiosity and altruism: Can Christian piety outweigh Dark Triad self-centredness? Jordan, R., & Tiliopoulos, N.

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The dark triad (DT) is a cluster of traits – Machiavellianism, narcissism and psychopathy – sharing a core of self-centred attitudes and behaviours. It has been linked with empathic deficits and low altruism. Religiosity is another fundamental aspect of personality, though its relationship with the 'dark' side of personality has not been studied. The present study investigated this relationship, using questionnaire and behavioural measures of altruism, and DT and religiosity questionnaires. Religiosity positively predicted altruism, while each triad trait negatively predicted altruism. Further, each triad trait correlated negatively with religiosity. However, there was no evidence of interaction between religiosity and the DT. Thus, contrary to expectations, religiosity did not moderate the DT's associations with altruism. Additional analysis of the data also revealed psychopathy alone was a sufficient DT predictor of altruism, suggesting that Machiavellianism and narcissism may be unnecessary in accounting for prosociality.

Teacher personality matters: Teacher personality facets predict student outcomes Kim, L., & MacCann, C.

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Teacher personality is emerging as a predictor of student educational outcomes, such as engagement, satisfaction, and grades. In the current study (N = 272 first year psychology students and 21 tutors), we assess 30 facets in five personality domains using the IPIP-NEO-120. We assess teacher personality using contextualised (personality "at university") and non-contextualised (personality "in general") framing. The outcomes considered are student satisfaction with the course and tutor and motivation and engagement. Consistent with our hypothesis, the narrow facets of teacher personality predicted both outcomes more strongly than the broad domains. Our hypothesis that the contextualised personality framing will predict student outcomes more strongly than non-contextualised was however not supported. Although there were significant mean differences between the two framings, there was no difference in their predictions of outcomes. This illustrates that portraying a modified personality in the classroom may not have much effect on student outcomes.

Measurement issues and some potential solutions in large-scale assessment Lee, J.

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Ecological fallacy is often observed when individual data are used for inferences at a group-level. It has been shown in relationship between job satisfaction and punctuality, conscientiousness and country development index, immigration and literacy rates in America, and religion and suicidal rates across Europe. It was not an exception in recent international large-scale assessments (e.g., PISA) where many psychological constructs measured showed ecological fallacy in their relationships to academic achievement measures. Such constructs include motivation, self-concept, attitudes towards school, and interest in an academic domain. This means, for example, that within each country, the data showed students who are motivated to study hard would perform better in mathematics or reading tests, whereas the opposite is shown when the data is analyzed with a country as a unit of analysis (i.e., countries with higher motivation are likely to produce lower scores in mathematics or reading achievement tests). In this presentation, I introduce some of recent development for how to address this issue of ecological fallacy. I also question whether a pancultural approach is appropriate for cross-national, cross-cultural data.

Two approaches to differentiating the Dark Triad: Investigating empathy and olfactory ability in psychopathy, Narcissism, and Machiavellianism Leonards, C., & Mahmut, M.

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Psychopathy, Narcissism and Machiavellianism are considered the three most socially aversive personalities and have collectively become known as the "Dark Triad". Research exploring differences in the Dark Triad has been sparse. The present study aimed to investigate whether the Dark Triad constructs could be differentiated by their empathy profiles and olfactory abilities. One hundred and thirty undergraduates (66 females) completed self-report measures of psychopathy, Narcissism, Machiavellianism and empathy; plus two olfactory tests assessing odour discrimination and identification ability. The results showed all Dark Triad constructs were associated with lower levels of affective empathy whereas only psychopathy and Machiavellianism were associated with lower levels of cognitive empathy. Only psychopathy was associated with poorer olfactory ability. The discussion focuses on how these findings contribute to differential validity of the Dark Triad and how simple neuropsychological tests of olfactory ability may provide an effective method for differentiating the three constructs.

Does negative mood really matter? Loxton, N.J, & Bothma, A.

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Overeating has been proposed as a response to negative mood states. However, a recent study found exposure to food cues and not negative mood triggered a desire to eat. The current study extended this finding by studying the association of traits related to cue-sensitivity (reward sensitivity) and mood-related impulsivity (negative urgency) and desire to eat. 171 women watched either 1) a sad video or a documentary and 2) exposed to a series of food images or matched non-food images. Again, food cues but not negative mood increased the desire to eat. There was a significant indirect effect of high reward sensitivity and external eating via the activation of eating desire following cue exposure. There was no association of negative urgency on eating desire following negative mood exposure. These findings further support the argument that exposure to images of food, but not negative mood triggers the desire to eat.

Understanding the impact of extraverted behaviour on positive affect: Does social well-being, social power, and left frontal asymmetry play a role?

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It is consistently found that people experience elevated levels of positive affect (PA) when behaving in an extraverted way (Fleeson, Malanos & Achille, 2002). Recent work suggests that extraverted behaviour may increase the quality of ones' social experiences, subsequently increasing PA in the moment, and over time. The present study sought to replicate findings that acting extraverted, relative to acting introverted, increases Social Well-being, and especially the Social Contribution component of Social Well-being. Secondary aims included investigating whether this effect extended to Social Power and Left Frontal Asymmetry. 40 participants were assigned to act either extraverted or introverted (in a counterbalanced order) during two discussion tasks with a confederate. After each task participants underwent an EEG recording and answered a number of questions assessing various measures of quality of social experience. Few robust effects were found after controlling for dispositional extraversion and order effects.

The bottom-up approach to psychological assessment: An adaptationist perspective on abilities and traits

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When conceptualising and operationalising a theorised latent variable, the key challenge in creating a valid construct is to produce a description of the phenomena of interest that is sensitive enough to both discriminate between dissimilar individuals, and detect meaningful changes within a single individual over time. Though many such constructs in the contemporary literature are conceived purely as useful theorists' fictions, ambitious researchers often take a realist approach their hypothesised latent variables, regarding them as approximations of true functional or structural differences somehow represented in brain. Although this approach is, by its nature, mired in speculation and uncertainty, researchers' prospects of success can be sharply improved by embracing a set of bottom-up inferential techniques developed by evolutionary theorists to exploit the reciprocal nature of form and function in biological systems. These adaptationist insights into the inheritance and development of psychological variations are an indispensable tool in understanding human individual differences.

Gimme dat ding: Dietary opportunism in the Dark Triad traits Middleton, J. P.

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The Dark Triad Traits (i.e., psychopathy, narcissism, and Machiavellianism) have recently been conceptualised in evolutionary terms as adaptive mechanisms that focus on short-term benefits. Given the evolutionary importance of dietary behaviors, we would then expect to find that the Dark Triad traits are linked with dietary opportunism. In this study, we examined whether major restaurant chain frequency, cuisine range, and dietary range were related to the Dark Triad and the Big Five traits. The dietary variables were all related to the Dark Triad traits, although this was driven primarily by narcissism. No relationships between dietary variables and the Big Five traits remained after regression. The implications of these findings are discusses from behavioral ecological and evolutionary psychological perspectives.

Prediction of medical school performance by cognitive and non-cognitive assessments Munro, D., Adam, J., Bore, M. and Powis, D.

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Selection for medical schools is moving from sole reliance on previous academic results to additional use of cognitive tests, though their predictive validity remains undemonstrated. Personality tests have been proposed as more appropriate for predicting clinical skills, though their use is even more experimental. We report the results of a six-year study of a single cohort of 146 students at a British medical school. Scores from a variety of cognitive and non-cognitive measures were collected at entry, and records were kept of every significant academic and clinically relevant assessment during the course. Some of the results of correlational and regression analyses will be presented. They show a complex pattern of relationships between the initial tests, intermediate assessments including tutor ratings of professional behaviours, and final academic and clinical performance (including penalties for professional lapses). Implications for the choice of variables and selection models will be discussed.

The hidden factors: Latent variables for personality and individual differences assessment Nowland, T. M.

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Assessment for personality and individual differences is frequently underscored by statistical analysis which relies on the concept of a latent variable that underpins the outcomes of the assessment. Recently, claims have emerged in psychometric literature for a realist underpinning for a causal interpretation of latent variable analysis, when it is used in psychological research. This paper presents a critical inquiry into this claim, in three steps. Firstly, the outcomes of a qualitative metaanalysis of three distinct realist approaches are presented. Secondly, the outcomes are used in conceptual analysis of key terms of the claim for latent variables, clarifying semantic relations and drawing out implicit assumptions. Thirdly, logical tests are conducted with reference to factor indeterminacy and realist measurement theory as it applies to latent variable analysis. The findings suggest minimal support for a causal realist interpretation of latent variable analysis, and some suitable and alternative approaches are presented.

Are you willing to sacrifice proximity in favour of a better quality mate? Nolland, M.

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The purpose was to investigate whether people are willing to sacrifice their value for proximity to seek better quality mates. The study aimed to further research (e.g., Kenrick, Groth, Trost, & Sadalla, 1993; Regan, 1998a) by suggesting an additional mate searching strategy to lowering one's standards. The total sample consisted of 370 participants who allocated 10 or 30 mate dollars to five characteristics for short-term and long-term partners (e.g., Li, Bailey, Kenrick, & Linsenmeier, 2002; Li & Kenrick, 2006). Men and women prioritised physical attractiveness across mating contexts, contrasting with prior findings that women prioritise social status in long-term mates (Li et al., 2002). Men and women would rather sacrifice their value for proximity to obtain a better quality mate than lower their standards. This study provides real-life "advice" for what an individual can do, alternatively to lowering one's standards, when he or she cannot find the mates they want.

The role of personality in creativity training success: Investigating the differential effect of relaxation and ideational skills training on creative performance for introverts and extraverts

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This study compared the short-term effectiveness of two creativity training programs (ideational skills vs relaxation), and assessed whether training effectiveness in each program was dependent on participant personality. Participants comprised 123 student volunteers who were allocated to one of three experimental conditions (ideation training, relaxation training, no-training control). All participants completed a range of personality measures as well as a test of creative performance both before and after training/no training. Results revealed a three-way interaction between extraversion (introverts vs. extraverts), training type (ideation skills training vs. relaxation training) and time (pre- vs. post-training), suggesting that relaxation training was particularly beneficial for introverts whereas ideation skills training was more effective for extraverts. Our results offer new evidence that the expected utility of creativity training program-types may vary according the personality of trainees. Our research has implications for organizations looking to boost creativity in the short term.

Harnessing the power and flexibility of exploratory structural equation modeling for the analysis of multidimensional personality item response data Perera, H. N.

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The independent cluster model of confirmatory factor analysis (ICM-CFA) applied to multifactorial personality data often fails to show acceptable fit. One reason for this is that the ICM-CFA specification may be too restrictive for multidimensional personality data. Yet, the ICM-CFA is held as the gold standard of factor analysis in personality measurement. This presentation reports on a program of research designed to demonstrate the advantages of exploratory structural equation modeling (ESEM), which integrates properties of exploratory factor analysis, confirmatory factor analysis and structural equation modeling, for examining the construct validity of scores generated from personality measures. Across four studies, evidence was obtained for the superiority of ESEM factorial solutions over ICM-CFA solutions in terms of both goodness of model fit and parameter estimation for widely used multidimensional measures of personality and cognate constructs. The ESEM methodology is illustrated across single and multiple population models for continuous and categorical item data.

# A Cronbachian model for integrating personality theories Poropat, A. E.

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Most approaches to personality have assumed that traits are 'real' and are based in neurobiological functioning, despite clear evidence that most variance in personality assessments arises from the perception rather than the expression of behaviour. So, although theoretical models of personality typically make intra-individual processes fundamental, the measurement of personality is inevitably confounded by inter-individual interactions. It is impossible to resolve this incommensurability without adopting a broader conceptualisation of personality. Although developed as an integrated account of measurement, Cronbachian Generalisability Theory provides just such a model for incorporating internal personality dynamics with external individual differences. In this presentation, I outline the grander studies required to develop and assess Cronbachian personality models. Without these multivariate, multimeasure, multirater studies, personality models are doomed to theoretical misattribution and methodological confounding.

Beneath the defensive mask of a dark mind: The inner processes of the Dark Triad Richardson, E. N.

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Defensive mechanisms can vary in chronicity and complexity with some individuals being more highly defended than others. Upholding one's defenses to keep the pain of reality at bay can be an exhausting practice involving many interweaving inner processes. Those high in the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) are often painted as "villains" or "perpetrators". What is going on behind the scenes and beneath the masks that are, the inner processes of such individuals are often discounted. In this study, the relationship between the Dark Triad and defensive strategies was investigated (N = 244). All three traits were correlated with the use of immature defenses, Machiavellianism in particular. Acting out, dissociation, and splitting were the defenses that all three traits had in common. These findings provide insight into the distinctive mindsets associated with each of the Dark Triad traits. Applications are discussed within a clinical framework.

# Character identification and flow in video games Soutter, A. R. B., & Hitchens, M.

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Flow and character identification are concepts that have been well studied in past literature. However, research on these concepts within video games and the relationship between these two concepts is in its infancy, despite their theoretical importance in video games. The aim of the study was to further examine these two concepts and their relationship within video games. 306 participants, recruited from both online and university sources, completed a series of self-report questionnaires online. As hypothesised, it was found that character identification was strongly and positively related to flow. It was also found that only the video game specific characteristics of similarity to character and customisation were negatively and positively related to flow respectively. It was found that character similarity was strongly and positively related to character identification. The personality constructs of Openness to Experience and Extraversion were also found to be positively and negatively related to character identification.

Investigating the validity of complexity leadership: The CLQ, is it new? Stone, S.J., & Metcalf, L.

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The terrorist attack on September 11<sup>th</sup> and the Global Financial Crisis were improbable, complex, and extreme events. The complexities of these events are rarely handled well by leaders (Uhl-Bien & Marion, 2009). Complexity leadership is heralded as a new leadership style to help leaders adapt to dynamic, unstable, and complex environments, which can be measured by the Complexity Leadership Questionnaire (CLQ; Pluess, 2012). However, the CLQ has no exploration of divergent validity. Complexity leadership shares several central themes with styles of change, empowering, and transformational leadership. This study compared the CLQ to questionnaires measuring each of these leadership styles to investigate whether complexity leadership is a unique - and therefore useful - construct. In two groups: an organisational sample and a student sample, the results demonstrated that the CLQ is significantly different to other leadership measures, thus this tool can be used practically to develop the complexity leadership style.

The long-term effects of exposure to violent and aggressive song lyrics Tarabay C., Warburton, W. A., & Gentile, D. A.

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Previous research has demonstrated a link between violent media, aggressive behaviour, and trait aggression. However, most aggressive personality research has focused on violent visual media effects, and research on violent auditory media is lacking. Ninety-one undergraduate psychology students were exposed to one of four novel song stimuli that had the same musical tone and lyrical structure, but differed in the level of aggression the lyrics conveyed (violent, overtly aggressive, subtly aggressive or nonaggressive). As part of the study, participants were interviewed one week later, and asked to recall the lyrics of the song they were exposed to. Those exposed to the most violent song lyrics recalled more lyrics, synonyms of lyrics and general concepts of what the lyrics conveyed compared to all other groups. The implications of the findings in terms of increasing trait aggression, and aggressive personality schema development will be discussed.

Is credulity related to emotional intelligence and agreeableness, and can cognitive busyness influence it? Teunisse, A. K.

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The study aimed to investigate whether credulity was related to agreeableness and emotional intelligence (EI), and if cognitive busyness could influence it. A pre-screen study, using 639 undergraduate psychology students, found that the credulity scale was comprised of three related factors named Superstition, Superstition (Reversed Items) and Conspiracy. A final sample included 102 undergraduate psychology students completed measures of agreeableness, EI and were randomly allocated to a control or cognitive busyness condition. They then completed the 20-item credulity scale. It was predicted that there would be a positive relationship between credulity and agreeableness, a negative relationship between credulity and EI, and that increased cognitive busyness would increase levels of credulity. The hypotheses were not supported. Post-hoc analyses revealed that females scored significantly higher than males and Christian and agnostic groups scored significantly higher than atheists. This study lays the foundations for new research into variables that increase credulity and gullibility.

Discrete and dimensional: The categorization of emotional images Tiffen, L., & Bore, M.

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The International Affective Picture System (IAPS; Lang, Bradley & Cuthbert, 2005) was developed to provide a standardized set of emotional images for affective research. Validation of the IAPS relied on a 'dimensional' view of emotion as variation in affective valence, arousal and dominance. An alternative model is that of Jaak Panksepp which is based on evidence supporting a 'discrete' view of emotion. Our proposition was that the IAPS stimuli could also be considered from this perspective. As no such prior research had been reported, the presented study's aim was to explore whether IAPS stimuli could be categorised under Panksepp's (1988; 2006) affective neuroscientific conception of seven basic emotional systems. The research design was an online, fixed choice, image sorting task with choice options defined by the seven discrete emotions plus 'neutral' and 'other'. Results indicated reasonable agreement regarding discrete emotional categorization of images and therefore greater opportunity to explore more a cohesive understanding of emotion.

Seeing reason: Sex differences, strategies, and performance on the Raven's Progressive Matrices Waschl, N., Burns, N., Nettelbeck, T., & Baetu, I.

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The Raven's Progressive Matrices tests are generally considered a measure of inductive reasoning. However, there is some evidence to suggest that these tests are not unidimensional, and that they may measure visuospatial ability in addition to inductive reasoning. In order to assess the dimensionality of the Advanced Progressive Matrices (APM), data were obtained from 1297 participants for a short form of the APM and from 455 participants for the full form of the APM. Confirmatory factor analysis was used to test the fit of several existing models of performance. Results showed differences between males and females in the fit of these models and provide some evidence that the APM may measure more than one construct, depending on the form used and to whom it is administered.

TOSCA-A: Factor structure, external validity, and measurement invariance across sex in a group of adolescents

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The Test of Self-Conscious Affect – Adolescent (TOSCA-A) is an age appropriate measure of shame and guilt proneness. For this measure, this study examined the factor structure, external validity, and measurement invariance across sex. Participants were 682 adolescents aged 12-16. They completed the TOSCA-A, as well as measures of depression and empathy, at two time points 13 months apart. CFA supported the theorized oblique two-factor structure of the TOSCA-A, with separate shame and guilt factors. Both factors correlated with empathy and depression as expected, thereby supporting the external validity of the TOSCA-A scales. Additionally, with the exception of four intercepts, there was invariance for all other model parameters. Also, girls had higher factor mean scores than boys for both shame and guilt. The psychometric, theoretical, and practical implications of the findings are discussed.

Is transliteration enough: Using mixed methods to semantically and psychometrically enhance a child personality scale

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Psychologists have three options when selecting an instrument novel to their culture or language; transliteral *adoption* ignoring cultural or semantic difference, *adaptation* considering linguistic and cultural attributes, and *assembly* of a new instrument (He & Van de Vijver, 2012). A sequential mixed method *adaptation* of an English translation of the Hierarchical Inventory of Personality in Children (HiPIC; Mervielde & Defruyt, 1999), a developmentally appropriate Five Factor Model measure of child personality, was conducted. Qualitative Cognitive Interviewing with end-users of the HiPIC identified potential semantic and conceptual disparity in individual items, leading to the generation of alternate items. In the quantitative phase, an online sample of 202 parent/carers responded to the original and alternate items. Iterative Single Factor analysis of all items and facets and Item Response Theory analysis allowed a defensible selection of *adapted* items and revision of the instrument for a more contextually embedded measure of personality in children.

Does brief mindfulness training increase empathy? The role of personality Winning, A. P., & Boag, S. G.

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Deficits in empathy are associated with both anti-social behaviour (including violence and criminality) and three of the most aversive personality styles (namely psychopathy, Machiavellianism and narcissism). Previous studies have indicated that mindfulness may provide a way to augment empathic functioning. The present study examined whether empathy could be increased by examining the interaction between the Big-Five personality traits and a short mindfulness induction. One hundred and fifteen undergraduate psychology students and members of the general public were assessed on personality traits, and then underwent either a short mindfulness induction or a control condition. This was followed by undertaking the Multifaceted Empathy Test to assess empathic functioning. Results indicate that those lower in Conscientiousness and Extraversion were associated with higher empathy scores related to correctly identifying the emotional state of people. Implications of the findings are discussed.

Can interpersonal traits explain prosocial behaviours in economic bargaining games? Evidence from two person-situation studies

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Economic games are experimental paradigms for modelling social decisions involving altruism, trust, and reciprocity. While behavioural heterogeneity within many games is well documented, whether this reflects generalised prosocial tendencies relating to broad personality traits remains to be seen (Zhao & Smillie, in press). In two studies (*N*=127, *N*=116), we examined whether Big Five and HEXACO factors were related to stable patterns of prosocial behaviour across three bargaining games. Consistent with previous research, Big Five Agreeableness and HEXACO Honesty-Humility were associated with greater allocations of money to a partner in the Dictator Game. In contrast, there was no relationship with personality in the Ultimatum Game, where a partner had veto power, and mixed relationships with several traits in the Generosity Game, where payoffs were no longer interdependent. The results are discussed within a person—situation framework, in which prosocial behaviours associated with relevant personality traits are elicited under different game conditions.

### RAPID ELECTRONIC POSTERS

The role of Empathy in predicting sensitivity to images of nurturance Andrews, L., & Bore, M.

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Empathy underpins individual differences in social behaviour (Munro, Bore & Powis, 2005; Reniers et al., 2011). Subsumed by the domain of Agreeableness, this personality facet is concerned with the response to the emotional state of another (DeYoung, Quilty & Peterson, 2007). These emotional responses can be elicited by stimuli, such as images of nurturance, and can be measured with affective reports (Bradley & Lang, 1994; Tiffen & Bore, in preparation). Data was collected from 175 undergraduate psychology students who completed personality measures of Empathy and undertook a picture-rating task. The results supported our hypotheses: variables of Empathy were related to varying degrees in the male and female samples; in the female sample some variables were correlated with responses to images of nurturance. These findings have implications for future research.

Dress for success: How skirt length influences perceptions of women's competence Baker, C.A., & Bull, A.

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Impression formation describes how people make assumptions about an individual's personality, cognitive ability and skills, in part based on cues from their physical appearance such as their clothing choice and style. There is a considerable body of literature on the impact of women's professional work attire on their potential career success. However, there remains a dearth of research on the influence of specific stylistic features of work attire. A study of 201 undergraduate students and community participants were asked to evaluate a female model's competence when she was dressed in a short, knee-length or below-knee length skirt suit. It was found that the model was rated as significantly less competent wearing a short skirt, when compared with a mid-length skirt or a long skirt. Furthermore, females rated the short skirt model significantly lower in competence compared to males. Findings are discussed in the context of gender-role theory and theories of intrasexual competition among women.

Visible body modification: A systematic review and future directions for research Bonson, S., Poropat, A.

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Body modification is the practice of deliberately altering the physical body, and has been found to correlate with such personality traits as openness to experience, extraversion and risk taking behaviours (McElroy, Summers, & Moore, 2014). Current research on body modification spans a wide range of disciplinary fields and research objectives, yet offers no coherent, comprehensive account of the extent to which body modification is linked to individual differences and societal influences. Additionally, much research into body modification takes a narrow perspective, with a focus on tattoos or body piercings and little investigation into other types of body modification or the elements within a body modification that may influence how that modification is perceived. This presentation outlines preliminary findings from a systematic review of body modification research from the past 24 years, with a focus on thematic analysis and research design. Additionally, this presentation outlines proposed future research in the area of body modification, particularly in regards to the influences of the various elements present in body modifications, context, and cognition, and the impact of body modifications upon employment prospects.

Validation of the tripartite model of anxiety and depression using the PANAS and PH-PANAS-C measures: Exploring age and gender differences
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The tripartite model of anxiety and depression (TRAD model) which differentiates disordered affect through three independent dimensions (positive affect:PA, negative affect :NA and physiological hyperarousal:PH) is used extensively. Issues raised recently in the literature relate to the independence of the TRAD dimensions, cross loading of items, poor model fit across varied samples and sex differences in adolescent samples. In Australia, TRAD-based instruments are widely used in adult and child samples, though the psychometric integrity of these instruments remains largely unexamined. The present study investigated the psychometric validity of two of the most widely used TRAD measures – the adult PANAS and child PH-PANAS-C in Australian adults (n=184) and children (n=115), gender and age-related differences. Principal components analysis supported the integrity of the TRAD model and the age-specific requirements of separate measures for use in adults and younger populations. No sex differences in adolescents were found for NA on the PH-PANAS-C.

Developing narrative comprehension: The role of gesture in child and adult comprehension Dargue, N.M., & Sweller, N.

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This study explored whether perceiving gesture affects the narrative comprehension of preschool children and adults. While gesture has previously been shown to benefit learning (Lozano & Tversky, 2005; Kelly, Barr, Church, & Lynch, 1999), research into how gesture affects narrative comprehension is scarce. In this study adults and children were presented with a videotaped narrative told in one of three conditions: with reinforcing gestures, contradictory gestures, or no gestures. After completing a filler task, participants answered questions about the narrative. Verbal recall of the narrative was compared between groups. Results suggested that children, but not adults, benefitted from perceiving reinforcing gestures. In contrast, perceiving contradictory gestures reduced narrative comprehension in adults but not children, compared to participants who perceived reinforcing gestures. Findings from the present study provide valuable insight into differences in how speech and gesture are processed in children and adults, and provide several directions for future research.

Preference for supernormal stimuli predicted by the two-factor model of impulsivity Goodwin, B. C.

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Supernormal stimuli are exaggerated versions of natural stimuli (e.g., energy-dense food, alcohol and television) that activate reward pathways more so than the unconditioned natural stimuli for which these systems were intended. The two-factor model of impulsivity distinguishes between behaviour that is; 1) fast, rash and unplanned and, 2) reward driven. This study investigated whether trait rash impulsivity and reward drive were differentially associated with preference for supernormal or natural stimuli. Participants answered items measuring anticipated pleasure in response to natural stimuli and supernormal stimuli. Factor analysis demonstrated two clear factors confirming discrimination between the two types of stimuli. As predicted, rash impulsivity was positively associated with preference for supernormal stimuli and negatively associated with preference for natural stimuli. However, reward drive was only positively associated with a preference for supernormal stimuli. Findings suggest the two-factor model of impulsivity may be useful in predicting individual preferences towards healthy or unhealthy behaviours.

Are atheists implicit theists? Hitzeman, C., & Wastell, C.

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The Cognitive Science of Religion commonly advances the view that religious beliefs emerge naturally via specific cognitive biases without cultural influence. From this perspective comes the claim that self-proclaimed atheists harbor traces of supernatural thinking. By exploring the potential influence of the cultural learning mechanism Credibility Enhancing Displays (CREDs), which affirms beliefs, current disparities between studies involved in priming the implicit theism of atheists, might be reconciled. Eighty-eight students were randomly assigned to a religious or control prime condition. A dictator game was completed to obtain an indication of pro-social behaviour (PSB). Lifetime theists (LT) reported significantly higher CREDs exposure levels than lifetime atheists (LA), though not convert atheists (CA). Conversely, LA reported significantly lower CREDs exposure scores than CA. CA in the prime condition were significantly more pro-social than lifetime atheists. Additionally, higher scores of CREDs equated to higher PSB in the religious condition than the control condition. The results are consistent with the view that supernatural belief formation is an interactive process between both biology and culture.

Effects of gesture on narrative comprehension Macoun, A. M., & Sweller, N.

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Hand gesture is a ubiquitous feature of communication and has been found to facilitate comprehension. Gesture's utility in communication is particularly apparent in the educational context. The present study examined gesture as a form of non-verbal learning support for facilitating preschoolers' narrative comprehension. Specifically, the study aimed to investigate the most effective gestural support for a learner and whether gesture's effect on learning differs based on individual language differences (e.g., strong or weak language ability). Depending upon the assigned condition, the 101 preschool children viewed a verbal narrative with accompanying iconic, deictic, or beat gesture, or in the case of the control condition, no gesture. Observing gesture with speech was found to facilitate narrative comprehension with gesture conveying representational meaning (iconic and deictic) being the most beneficial. Clinical implications, limitations and directions for future research are discussed.

Compared to her? Does social comparison target differentiate the effects on self-concept for mothers of pre-school children?

Piercy, D.

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It is widely acknowledged that social comparison serves a self-evaluative function – people tend to assess their performance in particular domains in comparison to similar others (Suls & Wheeler, in press). In the parenting domain, where objective standards are lacking, mothers tend to compare themselves with other mothers to appraise their parenting performance. This experiment attempted to demonstrate differences in parenting self-aspect following exposure to varying comparison targets. Mothers of preschool children (*N*=63) rated their parenting competence and confidence after reading about either a successful or struggling mother. Based on past research, it was hypothesized that subsequent self-evaluations would be inversely related to comparison direction (Musswieler, Rüter & Epstude, 2004). Although results failed to demonstrate a simple effect of comparison condition on self-evaluation, the inclusion of specific self-esteem and perceived similarity to target in statistical modelling reflected the importance of individuals self-views in determining the effects of comparative experiences on self-construal.

Working with adolescents who self-harm: Interventions and clinician resilience Russell, K.A., & Bore, M.

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For the clinician, working in the area of mental health can be stressful, particularly when working with adolescents who self-harm. This study looked at the factors that influenced clinician resilience, such as the interventions they used, personally and clinically, as well as individual personality aspects. We examined these factors and their impact on clinician levels of stress, depression and anxiety. We assessed two kinds of resilience, one being the ability to "bounce back", together with the personality traits of emotional resilience, involvement and self-control. The results showed that clinicians find working with adolescents who self-harm to be stressful, difficult, and frustrating and this can impact on their resilience. Clinicians who had more coping strategies tended to fare better and have higher resilience than others, as did those with more experience in working with adolescents. Unexpectedly, clinicians with lower levels of Involvement and Self-control also managed their stress more effectively.

# The Metacognitive Model of Anxiety and Depression in male youth Wallace, M., & Hudson, J. L.

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The Metacognitive Model of Generalised Anxiety Disorder (GAD; Wells, 1995, 1999, 2004, 2005) has been proposed to explain how worry maintains GAD whilst the Metacognitive Model of Rumination and Depression (Papageorgiou & Wells, 2003, 2004) has been proposed to explain how rumination maintains depression. However, research on rumination and worry casts doubt upon the specificity of these concepts in predicting their respective psychopathologies. The relationships between worry, rumination, metacognition, and anxiety and depression symptoms were examined using several self-report measures in 192 Australian male youth (M = 14.95 SD = 1.47). Rumination emerged as a transdiagnostic factor related to both anxiety and depression over and above the Metacognitive Model of GAD (positive and negative beliefs about worry). Furthermore, supporting evidence was found regarding the application of the metacognitive model of non-clinical depression and rumination in young Australian males. Clinical implications, limitations and directions for future research are discussed.

## **NOTES**