

Visual factors affecting glideslope control and touchdown during simulated aircraft landing

ASH, A., PALMISANO, S., & KIM, J. (University of Wollongong)
april@uow.edu.au

This flight simulation study examined the effects of starting height, scene lighting, and runway length on glideslope control and landing quality. Aircraft landings were simulated under day or night conditions, with pilots starting either 'too high', 'too low' or on an ideal 3° glideslope. Student and private pilot participants actively controlled simulated landings until they touched down on either a long or a short runway. Both student and private pilots were poor at perceiving and compensating for approaches that started 'too high' or 'too low', particularly during night conditions. Pilots were also poor at converging with an ideal glideslope, and tended to maintain the angle at which they started the final approach. Final landing quality was not substantially compromised by earlier errors during the glideslope control phase. Pilots appeared to be adjusting for glideslope errors through their performance of the landing flare, in which private pilots were significantly more accurate.

The 1-2-3 Magic Program: An evaluation of a brief psychoeducational parenting program

BAILEY, EL., BROOKS, A., VAN DER ZWAN, R. (Southern Cross University), & PHELAN, TW.
(ParentMagic Inc.)
erin.bailey@scu.edu.au

The general efficacy of parenting interventions at providing parents with the skills needed to successfully raise children has been well established by empirical research (Bradley et al., 2003; Sanders et al., 2007). The *1-2-3 Magic Program* (Phelan, 1984) is one such brief intervention designed for parents of children aged 2-12 years. The program has a 'skills acquisition' focus: Of primary concern is the provision to parents of practical techniques designed to manage child misbehaviour. The recent introduction of 1-2-3 Magic into the Australian market has created an impetus for empirical evaluation to ensure the suitability of that intervention for the needs of Australian families. Despite widespread use and access of the program by Australian parents/caregivers, no evaluation thus far has been undertaken. The aim of this project, therefore, was to address this shortfall by establishing outcomes for both parent and child associated with parental implementation of 1-2-3 Magic in the home. Parents/caregivers of children aged 6-12 years participated in a randomized controlled trial of the intervention program. Families were randomly assigned either to an immediate intervention group or a wait-listed control group. Participants in the immediate intervention group then undertook a standard practitioner-directed 1-2-3 Magic education course, involving participation in two 3 hour group sessions. At post-intervention assessment and relative to the control group, parents/caregivers in the immediate intervention group reported improvements in both child behaviour and parent outcome measures. More specifically, children were reported as engaging in a significantly reduced number of disruptive behaviours immediately following implementation of 1-2-3 Magic in the home. Lower levels of parental stress and increased levels of confidence in parenting ability were also reported by parents in this group at post-intervention assessment. As such data from the current preliminary study support the efficacy of the 1-2-3 Magic Program as a brief parenting intervention for Australian families. The potential benefits for parents and caregivers of 1-2-3 Magic as an 'entry-level' parenting intervention are also proposed. Future research will focus on establishing further the long-term outcomes for both parent and child arising from implementation of the 1-2-3 Magic program in the home.

Individualism, collectivism, and voting behaviour: A follow-up study into political values

BECCARIA, GJ., WIBROW, J., & BACZYNSKI, M. (University of Southern Queensland)
beccarig@usq.edu.au

The constructs of *individualism (I)* and *collectivism (C)* originated in Western political philosophy in the eighteenth and nineteenth century; however, there has been little or no research into how these constructs may fit within a modern political framework. Triandis (1995) and his colleagues have conducted a wealth of research into the constructs of individualism and collectivism generally comparing different cultural groups and values. Individualism is often linked with liberalism, which embraces the ideals of maximising the freedom of the individual, whereby through collectivism individuals gain freedom by both forming and submitting to the common will. Triandis also adds another dimension to the I-C construct: that is *horizontal* and *vertical* social relationships. A horizontal society aspires to the values of equality and little differences in social ranking; whereas a vertical society accepts, or even embraces, ranking and hierarchy. Although little empirical evidence exists, it has logically been assumed that these cultural

values correspond with political ideologies. Previous research has found that right of centre voters (i.e. Liberal Party) endorsed individualism, vertical individualism over left of centre voters (i.e. Australian Labor Party (ALP)) (Beccaria, Baczynski, & McIlveen, 2008). An exit poll at the March 2008 Toowoomba Council elections used a survey of voting behaviour, and a modified 20-item Individualism and Collectivism (I-C) scale. Seventy-three voters participated, although voters of minor parties were excluded due to their small numbers, leaving 57 who voted for the Liberal – National Coalition in Australia (Coalition) or the ALP. The reliability of the I-C Scale has been notably variable for different samples; and the scale was further modified to gain adequate reliability (around $\alpha = .6$) for this study. Results generally replicated the previous study, where Coalition voters endorsed more individualism than ALP voters, in particular more vertical individualism. ALP voters endorsed more horizontal collectivist values than LP voters.

The effect of violent auditory media versus the effect of violent visual media on aggressive behaviour and its relationship to personality

BRUMMERT ORREGO, H., & WARBURTON, W. (Macquarie University)

heidi.brummertorrego@students.mq.edu.au

Many forms of aggressive behaviour have been linked to exposure to violent media (e.g., music, television, video games), but to date there have been inconsistent findings regarding the effect of violent music, and there is little data comparing the effects of violent media presented through visual and auditory modes. There is also some controversy over whether it is the lyrics or the tone in violent music that is responsible for any aggression-eliciting effects. The current study examined these questions in the laboratory by exposing participants to different parts of the same violent music video clip. The participants were exposed to the full song without seeing the video clip, the lyric free version of the song without seeing the video clip, the video clip with full song and the video clip with the lyric free version of the song. Aggressive behaviour was then measured as the preparedness to allow suffering of a stranger through the amount of very hot chilli sauce participants would make a stranger eat knowing that the other person did not like hot foods. Aggression was also measured through a lexical decision task. Measures of trait aggression, hostility, media violence exposure and affective state were also taken, along with a measure of 'sensational interests' (i.e., interests in the unusual, the occult and weapons etc.). Although final results from this study are yet to be analysed, it is expected they will show that compared to only having auditory or visual exposure to violent media (a) exposure to both violent visual media and violent auditory media will increase aggression levels in individuals, (b) violent visual media will have a different effect on aggression than violent auditory media, (c) Auditory media (1) with a violent tone and (2) with violent lyrics and violent tone will elicit different patterns of aggression, (d) aggression will be associated with sensational interests and personality, (e) long term media violence exposure will be linked to trait aggression, with the effect of media on sensational interests partially mediating the effect, and that (f) the activation of aggressive constructs as a result of media violence will decrease in intensity with time. The implications of the findings will be discussed.

Career decision self-efficacy (CDSE): A meta-analysis approach

CHOI, BY., PARK, HR., LEE, JH., & PARK, YM. (Korea University)

be-wind@hanmail.net

Social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994, 1996) expanded Bandura's (1986) social cognitive theory to explain the dynamics of various internal and external factors of career development. Social cognitive career theory emphasizes three social cognitive variables that may be relevant to career development: self-efficacy, outcome expectations, and goals. Self-efficacy, in particular, has received extensive attention in the career literature (Betz & Hackett, 2006). Among several measures that assess career self-efficacy, the Career Decision Self-Efficacy Scale (CDSES; Taylor & Betz, 1983) is the most commonly used measure for self-efficacy in career decision making processes. Career decision self-efficacy has been recognized as an important factor associated with diverse career-related behaviours. Although career decision self-efficacy is an indicator of positive career attitudes and behaviours, as well as psychological adjustment, results from previous studies investigating the relationship between career decision self-efficacy and some demographic characteristics (e.g., race and gender) or career-related variables (e.g., vocational expectation and career barriers) have been mixed. Thus, this study used a meta-analytic approach to integrate findings from previous empirical studies and obtain a clearer understanding of the role of career decision self-efficacy in career decision making. We

searched and selected nine relevant variables (gender, age, race, career indecision, vocational outcome expectation, self-esteem, career barriers, vocational identity, and peer support) in 29 empirical studies. The total sample size was 9,143. In accordance with the criteria Cohen (1988) suggested about the effect size of Pearson r , among these 9 relevant variables, career decision self-efficacy, gender, age, race, and career barriers showed a small effect size. Peer support and vocational outcome expectation had medium sized effects on career decision self-efficacy. Self-esteem, vocational identity, and career indecision were revealed to have large and strong effect sizes related to career decision self-efficacy. These results show that career decision self-efficacy was strongly and positively predicted by self-esteem and vocational identity, and it strongly and negatively predicted career indecision. Also it is hypothesized that gender, race and career barriers would have an indirect influence on career decision self-efficacy mediated by some variables relating to learning experiences.

Revising the Career Stress Inventory for Korean college students: A cross-validation study

CHOI, BY., PARK, YM., & LEE, JH. (Korea University)

qudud74@hanmail.net

College ranks as one of the most potentially stressful times of life. Seth (2000) reported that Korean college students were concerned about their GPA to increase the opportunity for future employment in the job market. Lee, Kang and Yum (2005) reported that Korean college students are aware of the uncertain aspect of their future and career, which seems to indicate that their beliefs and attitudes about career-seeking might be influenced by the recent international financial crisis. However, few studies have focused on the topic of career stress among college students. For example, although most career counselors observe complicated factors related to students' career stress, there are few studies that identified specific aspects of career stress among college students. For this reason, H. R. Park and his colleagues (2008) were the first to develop a scale related to career stress, the Career Stress Inventory (CSI). The scale consists of 5 factors with 25 Likert-type items, 5 items pertaining to each factor. However, one of the subscales, internal conflict factor, lacks good reliability and validity scores. Therefore, the purpose of this study is to improve the validity and reliability of the CSI scores by eliminating the internal conflict subscale. Four hundred and thirty eight college students, including 253 males and 174 females participated in this study. The researchers used the CSI-R (Career Stress Inventory-Revised), which consists of only four factors (i.e., career ambiguity, employment pressure, external conflict, and lacking information), with 20 Likert-type items. We used confirmatory factor analysis (CFA) to test the goodness of fit of the four-factor CSI-R on Korean college students. In addition, internal consistency was also reassessed for each of the subscales of the CSI-R. The goodness of fit of the CFA indicated the satisfactory construct validity of the CSI-R. The Cronbach's alpha coefficients of the CSI subscale scores were .89 for career ambiguity, .85 for employment pressure, .83 for external conflict, and .89 for lacking information. Practical implications of CSI-R for college career counselors are discussed.

The psychological and genetic correlates of the bipolar affective trait

COLLETT, J., PALOMBO, E., & MURRAY, G. (Swinburne University of Technology)

4162293@swin.edu.au

Bipolar disorder can be conceptualised as a continuously distributed trait, called trait bipolarity. Phase I of the present study used hierarchical regression to investigate trait bipolarity in relation to the five-factor model of personality, measuring both constructs via questionnaire. As bipolar disorder has been shown to have strong heritability it stands to reason that trait bipolarity may also be influenced by genetic material. Phase II of the study was conducted as a pilot investigation into the genetic correlates of trait bipolarity. A total of 212 psychology students participated in Phase I of the project, whilst 24 of the Phase I participants also participated in Phase II by providing saliva samples. The saliva samples were subjected to polymerase chain reaction to analyse the circadian genes *Per3ex18* and *CLOCK*, and the neurotransmitter gene *SERTPR*. As expected, Phase I found neuroticism to be the strongest predictor of trait bipolarity. Agreeableness contributed a weak effect over and above the contribution of neuroticism. Between-groups chi-square analyses and subsidiary Kruskal-Wallis tests found no significant differences in trait bipolarity in terms of genetic main effect or gene x gene interaction. It was concluded that the conceptual overlap between trait bipolarity and neuroticism is a challenge for future genetic investigations. Phase II was not sufficiently powerful to detect a genetic effect; however, the methodology tested by the pilot study was feasible, and provides an appropriate framework for future projects.

Neither in nor out: The inclusion of marginal group members is influenced by essentialist rhetoric

CRUWYS, T., & PLATOW, M. (Australian National University)

tegan.cruwys@anu.edu.au

For many categories, group boundaries are not definite and unchanging but 'fuzzy.' Consequently, the membership status of *marginal group members* may be contentious and variable. There are two possible mechanisms for variable inclusion: a shift in the perception of individuals and a shift in the perception of group boundaries. The two dimensions of essentialism were manipulated to examine how variable inclusion occurs. The results were analysed using multidimensional scaling in conjunction with contour mapping in order to create a geometric depiction of the similarity of individuals and the boundaries of the ingroup simultaneously. Naturalness beliefs predicted lower inclusion in the group, particularly for marginal group members. The mechanism for this was a change in the criteria participants considered important for group membership; that is, naturalness affected perceptions of the *group*. The results suggest that categorisation can be altered using naturalness rhetoric. These findings are discussed in terms of the implications for categorisation processes and the consequences for marginal group members.

Utility of the Depression Anxiety Stress Scales in assessing depression and anxiety following traumatic brain injury

DAHM, J., PONSFORD, J., WONG, D., & SCHÖNBERGER, M. (Monash University)

jane.dahm@med.monash.edu.au

The prevalence of anxiety and depression following traumatic brain injury (TBI) has been reported as significantly higher than the community base rate and is associated with poorer outcomes. However, identification of the presence of anxiety and mood disorders in this population is complicated by confounding symptoms of the injury. This study investigated the sensitivity and specificity of two self-report measures in predicting DSM-IV-TR diagnoses of anxiety and depression following traumatic brain injury (TBI). Sixty-two participants aged 19 to 78 years completed the Depression Anxiety Stress Scales (DASS) and Hospital Anxiety and Depression Scale (HADS). Hypotheses that the DASS would perform better overall than the HADS, and that using various short forms of the DASS would improve its performance, were not supported. However, both the HADS and the DASS demonstrated validity in predicting diagnosis of depression, while the Stress scale of the DASS demonstrated validity in predicting diagnosis of an anxiety disorder and was more sensitive than either the HADS or the DASS Anxiety scales. The influence of particular items on scores is discussed and possible explanations for the negative findings are explored, including the influence of general distress experienced in this population on their questionnaire responses. Further research exploring the most appropriate measures of anxiety and depression following TBI is recommended, with significant implications for improving outcomes for individuals with TBI.

Adherence and beliefs of prescribed medication in the aboriginals and non aboriginal elderly population in the top end

DETTWILLER, P., & SURTI, H. (Charles Darwin University)

pascale.dettwiller@cdu.edu.au

Rates of 'Adherence' (as defined by the World Health Organization) to medication regimens is considered to be very low amongst elderly Australian Aboriginal adults. 'Adherence' characterizes patients as self-governing, intelligent, and autonomous persons who can take more active responsibility for their own medical treatment. Medication adherence emphasizes communication between the patient and healthcare provider; an essential for optimal adherence. Adherence is intended to be a non-judgmental term, and a statement of fact rather than blame of the prescriber, patient, or treatment. The question as to why patients do not adhere to medication implies broad social and personal issues rather than the medical goals implied by 'compliance'. Medication non-adherence is a widely known concern for all healthcare professionals. Additionally, in Australia, patient non-adherence contributes to up to 50% of medication-related hospital admissions and in most cases, these were considered preventable. The aim of this paper is to present the results of a prospective survey designed to identify the nature and influence of the cultural beliefs in Aboriginal elderly populations on their behaviour related to adherence to medication regimens. The method involved a comparison study examining the differences between non-indigenous urban-dwelling elderly people, indigenous urban-dwelling elderly people, and indigenous elderly people living in remote communities of the Northern Territory. Terms of reference were: (1) Rate of

medication adherence to prescribed medications, (2) Level of knowledge of their medications and dosing schedules, and (3) Influences of cultural beliefs regarding their prescribed medications. Results suggest that the perceptions of some Aboriginals that Western medication causes addiction or can make a person's condition worse, and fear that Western medications may actually kill the person rather than curing them, are cultural barriers in the management of pain. Elderly indigenous people living in remote areas have problems accessing mainstream specialized services. Moreover, elderly indigenous people are not willing to go to the hospitals because of associated negative connotations, incompatibility of Western medication with their culture, and lack of understanding about the disease and benefits of treatment. Recommendations to address these concerns will be discussed.

Crime and punishment: A psychological conversation and challenge for the profession of psychology to contribute to the treatment of especially young offenders

DIETER, G. (Independent Practice)
 george@axiompysch.com.au

The cycle of crime and punishment represented in criminal recidivism puts in doubt the behaviourist proposition that adverse consequences will reduce the incidence of the associated behaviour. Research suggests that the reasons for offending and re-offending is multifactorial. Regrettably the outcomes of the research are often more confusing than enlightening when trying to explain why punishment does not seem to yield the expected results with many offenders. However, young offenders may offer a degree of optimism, as these factors are more proximal, therefore easier to isolate. This paper acknowledges the many and various reasons associated with offending, but challenges the notion that, while they may explain initial offending, they also explain recidivism. This paper suggests that the repeated cycles of crime and punishment represent an ongoing "conversation", which starts at an early age, and can therefore, be much easier understood when observing young offenders, as it underlies the subsequent seemingly impervious nature of recidivism. Communication is the hallmark of human interactions. We seek to make ourselves understood and failure to achieve this leads invariably to adverse consequences for the individual, affecting their psychological well-being and/or social behaviour. The need to feel heard and understood, in young offenders unfortunately by the same "misunderstood" means, explains why the adverse consequences of punishment are the lesser price to pay when engaging in recidivist behaviour. Treating crime and punishment as an ongoing conversation may also explain why the perpetual increase in punishment is ineffective and can be seen as akin to speaking louder to someone who does not speak the same language. This paper seeks to stimulate discussion among psychologists about the role psychology can play in reducing recidivism, in the first instance in the young offender population. It draws on, but also challenges theories and research, which underpin current interventions, but also relies on the experience as a practitioner in the juvenile criminal justice system.

Serotonin 5-HT₄ receptors in the nucleus accumbens are involved in the appetite suppressant effects of MDMA

FRANCIS, H., KRAUSHAAR, N., HUNT, L., & CORNISH, J. (Macquarie University)
 heather.francis@mq.edu.au

It is recognised that serotonin (5-HT) release is a predominant mechanism of 3,4-methylenedioxymethamphetamine (MDMA) in the brain, yet characterisation of the specific receptors involved in the behavioural effects of MDMA, such as appetite suppression, is ongoing. The appetite suppressant effects of MDMA are attenuated in 5-HT₄ knockout mice (Jean *et al.*, 2007), however the location of these receptors involved in these effects are unknown. A key brain region involved in feeding and reward processes is the nucleus accumbens (NAc). 5-HT₄ receptors are located in the NAc and we aimed to investigate the role of 5-HT₄ receptors in this brain region in the appetite suppressing effects of MDMA. Male Hooded Wistar rats underwent surgery for the implantation of bilateral NAc microinjection cannulae (26 Ga) under isoflurane anaesthesia. Following 5-7 days of recovery the rats received bilateral microinjections of the 5-HT₄ antagonist RS39604 (0, 0.3, 1 or 3nmol) into the NAc immediately prior to either saline (1 ml/kg, i.p.) or MDMA (10 mg/kg, i.p.) administration. Food and water intake was then measured for 3 hours ($n=24$). In a separate group the effect of RS39604 on MDMA- or saline-induced locomotor activity was measured for 3 hours ($n=12$). Our results revealed that RS39604 (1nmol) significantly increased food intake after 1 hour in MDMA treated rats but not saline treated rats. Measures of weight change, water intake or locomotor activity were not altered by antagonist administration. These

results demonstrate that 5-HT₄ receptors in the NAc are involved in the appetite suppressant effects of MDMA, but do not mediate MDMA-induced water intake or locomotor activity.

Effortful control attenuates relation between negative affectivity and depressive symptoms in late adolescence and early adulthood

GARDNER, T. (Department of Corrective Services, WA), & DISHION, T. (University of Oregon)
theodore.gardner@correctiveservices.wa.gov.au

Negative affectivity is a temperamental tendency to respond with high levels of distress to stressors and is associated with concurrent and subsequent development of mental health problems. Effortful control is a temperamental construct that involves the capacity to exert volitional control over attentional resources to regulate behaviour and emotion. Relatively few studies have examined how these dimensions of temperament transact with one another in relation to symptomatology in youth and adolescents, and fewer still have considered their roles in psychosocial well-being during early adulthood. This study examined the extent to which effortful control modified the relation between high negative emotionality and depressive symptoms in two samples: (1) 626 adolescents and (2) 59 undergraduate students. Depressive symptoms were assessed with the Adult Self Report in both samples (ASR; Achenbach & Rescorla, 2003). Temperament in the adolescent sample was assessed using self-report and parent-report versions of the Early Adolescent Temperament Questionnaire – Revised (Ellis & Rothbart, 2002). Temperament in the early adult sample was assessed by self-report on the Adult Temperament Questionnaire (ATQ; Rothbart, Ahadi, & Evans, 2000). In both samples bivariate correlations demonstrated that the three variables of interest were intercorrelated in the predicted directions. For both samples gender, negative affectivity, effortful control, and a negative affectivity by effortful control interaction term were entered into a regression equation to determine the relations among these variables with concurrent depressive symptomatology. The predictor variables were centered to maximize interpretability and to minimize potential problems with multicollinearity among the predictor variables and their higher order terms as a result of scaling (Aiken & West, 1991). Consistent with predictions, the interaction term was statistically significant and visual inspection of the slopes indicated that the relation between negative emotionality and depressive symptoms was attenuated by high levels of effortful control. The results are consistent with recent empirical studies of relations among temperamental constructs and risk for psychosocial problems, and are discussed within the context of empirical literature regarding the role of attentional processes and self-regulation in psychological health. Limitations of the analyses are acknowledged and directions for future research are discussed.

Measuring modality preference

HANSEN, L., & COTTRELL, D. (James Cook University)
louise.hansen@jcu.edu.au

Advocates of modality preference posit that each individual has a dominant sense, visual, auditory, or kinesthetic, and that when new material is presented in this preferred modality, learning is enhanced. Obviously, applying such an approach in instructional settings is predicated on an accurate assessment of each individual's modality preference. Typically educators have used two approaches, they have either simply asked student's which modality they learnt best in or they have administered questionnaires such as the Barsch Learning Style Inventory (BLSI). In this study we asked two questions: What are the psychometric properties of the BLSI and is the questionnaire a valid measure of potential learning outcomes. We found that BLSI did not appear to be a robust measure of modality preference. In addition, visual and auditory preference scores derived from the BLSI did not correlate with recall of simple sequences of visual and auditory stimuli. This finding suggests that the BLSI is not a useful instrument to assess modality preference.

Influence of knowledge about genetic predisposition to Type II diabetes on health intentions: A modified theory of planned behaviour

HAWKINS, I., & DAVIDSON, G. (University of the Sunshine Coast)
ingrid.hawkins@disability.qld.gov.au

Approximately 700,000 Australians suffer from diabetes, nearly 83% of whom are diagnosed with insulin resistant, or Type II, diabetes. Genetics is one cause of the disease; however, adoption of a healthy lifestyle can help with its prevention and management. This research applied a modified theory of planned behaviour (TPB) to investigate the influence of prior knowledge about a predisposition to Type II diabetes

on intentions to engage in a healthy lifestyle. The study also investigated the influences of prior knowledge of predisposition to Type II diabetes on the various components within the traditional TPB model. Results of path model using structural equation modelling supported the paths of the traditional TPB model. Results also indicated that knowledge of a predisposition to Type II diabetes directly increased intentions to engage in a healthy lifestyle. However, knowledge also indirectly reduced intentions to engage in healthy behaviours through one's perceived capacity to engage in, and one's unpleasant attitudes towards engaging in, healthy behaviours. Therefore, prior knowledge of genetic disposition to Type II diabetes is both a blessing and a curse where healthy lifestyle intentions are concerned.

Neonatal immune stress impairs sexual behaviour independently of context-specific anxiety-like behaviour

HILES, SA., WALKER, AK., & HODGSON, DM. (University of Newcastle)
sarah.hiles@newcastle.edu.au

A growing body of epidemiological and experimental literature indicates that stress in early life is associated with the development of later life pathologies, including anxious behaviours. Underlying such pathologies may be dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, which has been consistently shown to be altered following early life stress. As the HPA axis regulates the hypothalamic-pituitary-gonadal (HPG) axis, it is likely that early life stress will also disrupt later life sexual functioning, and thus, reproductive fitness. While some studies have demonstrated that early life stress alters sexual behaviour, no studies have characterised the effect of a clinically relevant neonatal immunological stressor on sexual performance. Further, previous studies have not controlled whether anxiety-like behaviour, known to precipitate following early life stress, can explain the observed sexual behaviour deficits. To this end, 120 Wistar rats were exposed to the immunological stimulus bacterial endotoxin or saline on days three and five of life. In adulthood, animals were exposed to a 3 day stress protocol or no stress. Animals were tested for anxiety-like behaviour in the open field/hidebox apparatus prior to the introduction of an untreated counterpart for the sexual behaviour test. Blood was taken for corticosterone analysis immediately following behaviour testing to examine HPA axis activity. The results indicated no consistent effects of neonatal or adult stress for females in the open field/hidebox test. However, males exposed to stress in adulthood, but not neonatally, spent significantly more time in the hidebox and in hypervigilant behaviour, indicative of anxiety-like behaviour. Males exposed to adult stress also demonstrated a significantly potentiated corticosterone response to behaviour testing. In contrast, adult treatment did not significantly alter sexual behaviour. However, neonatal endotoxin treatment in females, but not males, led to significantly impaired sexual behaviour in terms of increased latency to mount, fewer mounts and increased kicking. The current data indicate that neonatal immune stimulation can significantly impair later life sexual behaviour. Importantly, however, these effects appeared independent of anxiety-like behaviour within the sexual behaviour testing context. Thus, there may be direct impairment of the HPG axis, suggesting potential developmental origins for reproductive dysfunction and reproductive success.

Adult spelling and morphological knowledge

HOKANSON, L., & KEMP, N. (University of Tasmania)
lhokanso@utas.edu.au

Conventional models of spelling development (e.g., Gentry, 1982; Henderson & Templeton, 1986) propose that by adulthood, individuals fully understand and represent the regularities of the English orthography that exist beyond the level of sound-based spelling (e.g., *b* says "b"), such as morphology and grammar (e.g., plurals need a final *s*). These predictions were tested by examining undergraduates' ability to spell words that conform to higher-order linguistic rules. Fifty-three first-year university students were assessed on their morphological awareness and spelling accuracy, before and after a two-hour intervention focused on the morphological basis and correct spelling of plural nouns (e.g., *cities*) and possessive nouns (e.g., *city's*, *cities'*). To distinguish the influence of morphological awareness from spelling rules, the intervention emphasised the conceptual and morphological underpinnings of plurals and possession as well as instruction in the correct omission or placement of possessive apostrophes. Overall, the intervention improved accuracy on all three word types. Plurals were spelt with near ceiling accuracy and demonstrated only a slight intervention effect. The spelling of singular possessives and plural possessives displayed greater intervention effects but performance on both remained below ceiling,

with particularly poor accuracy for plural possessives. The intervention also increased morphological awareness; an understanding of the concepts of plurality and possession, and the sentence contexts which signal them. Specific training in the conceptual and morphological basis of these spelling patterns particularly improved the spelling of singular possessives but not plurals or plural possessives. This suggests that brief training in morphological knowledge may increase the ability to employ simpler/more familiar rules (singular possessives) than more complex/less familiar ones (plural possessives). These specific intervention effects suggest that, contrary to the predictions of spelling models, adult spelling may reflect an incomplete grasp of the morphological regularities that govern some spelling patterns. These findings add to the growing body of research which indicates that conventional stage models of spelling may misrepresent the progression of spelling competency as a series of successive stages beginning with simple linguistic regularities and concluding with mastery of higher-level, complex linguistic information.

Sensitivity of the word-stem completion task as a measure of auditory perceptual priming in children undergoing surgery with general anaesthesia

HUTCHENS, R., STARGATT, R. (La Trobe University), & DAVIDSON, AJ. (Royal Children's Hospital, Melbourne)

rl4hutchens@students.latrobe.edu.au

The extent of cognitive processing that can occur during general anaesthesia is highly contentious and has been the focus of much research involving adult participants. Little research has been conducted with children, partly due to the absence of a sensitive measure of cognitive processing validated in matched samples. The current study aimed to develop a test of implicit memory (where performance on memory tasks is improved without conscious recollection of information) and to measure the sensitivity of this test to detect implicit memory with a large sample of children undergoing surgery with general anaesthesia. One hundred and six children (aged 7-12 years old), undergoing elective surgery at the Royal Children's Hospital Melbourne, were verbally presented with a list of words preoperatively while they completed a distractor visual search task. Following surgery, participants completed a word-stem completion task that involved completing onsets (the first three letters of a word) corresponding to previously heard words (target words) and distractor words with the first word that came to mind. In accordance with the proposed hypothesis, children completed the previously exposed target word onsets with target words at a higher rate than the distractor word onsets. Therefore, this word-stem completion task was found to be a sensitive measure of implicit memory in the peri-operative setting where anxiety and medications are inevitable factors affecting memory formation. In addition, this task appeared to be relatively robust to individual differences in children's age and sex and across surgical procedures. Further, the baseline frequency of target words was identified as a characteristic which can be used to further increase sensitivity of the task. In future research, the initial phase of this task (presentation of target words) can be undertaken whilst children are under general anaesthesia to help determine whether implicit memory formation can occur during adequate levels of anaesthesia or whether memory formation reflects periods of awareness and thus the failure of an anaesthetic.

Job demands and resources: A Malaysian perspective on employee stress in private and public sector organisations

IDRIS, MA., DOLLARD, MF., & WINEFIELD, AH. (University of South Australia)

idrma001@students.unisa.edu.au

Since its introduction in 2000, the Job Demands and Resources (JD-R) model of job stress has been studied extensively and exclusively in Western countries. Although the JD-R is not proscriptive about specific demands and resources to be modeled, common demands (e.g. workloads, deadlines) and resources variables (e.g. support) are often used. The question is whether the common variables in the JD-R model that had their origins in Western formulations are applicable in developing countries. Based on grounded theory, we conducted individual interviews ($N = 48$) and focus group interviews ($N = 13$) with two groups of respondents (managers and non-managers) who worked for private and public sector organisations. We investigated whether specific job demands and resources may apply in Malaysian workplaces. Data were analyzed using thematic content analysis. The results show that Malaysian employees identify job demands (e.g. workloads, deadlines) and resources (e.g. support), at multiple levels, compared to Western employees, perhaps due to the more salient impact of globalization on developing countries.

The effect of social anxiety on the emotional recognition from facial expression

KIM, HJ., WOO, SB., KO, YG., & YANG, E. (Korea University, South Korea)
hanz@korea.ac.kr

Social anxiety has been reported to accompany heightened sensitivity in recognizing negative emotions from facial expression (Rapee & Heimberg, 1997). However, previous literature is limited in that it did not consider different types of social anxiety. Specifically, social anxiety can be differentiated by two subtypes. One type involves anxiety experienced when meeting and talking to other people, while the other type focuses on anxiety experienced when thinking that he or she is observed by others (Mattick & Clarke, 1998). Empirical studies also supported these two types (Habke, Hewitt, Norton, & Asmundson, 1997). Based on this distinction, this study investigated the role of different types of social anxiety on recognizing emotions from facial expression. Participants were screened using the Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS). The SIAS is designed to target anxiety experienced in meeting and talking to others, and the SPS assesses anxiety experienced at the prospect of being observed. Those who scored higher than average on both scales were assigned to Social Anxiety Group (SAG), and those who scored lower than average on both scales were defined as Comparison Group (CG). A total of 188 individuals (102 SAG, 86 CG) participated in this study. These participants were asked to look at the pictures with facial expression on a computer screen and rate six dimensions of emotions using a 6 point Likert-type scale. Six dimensions of emotions included happiness, anger, surprise, sadness, fear, and disgust. The pictures were developed through morphing to reflect different degrees of six types of emotions. The ANOVA results showed that the SAG rated higher on the dimensions of anger and disgust than the CG. Multiple regression analyses were performed to assess the relative importance of SIAS and SPS scores on the rating of anger and disgust, respectively. The results showed that the SIAS score was the only significant predictor of rated intensity of anger and disgust. It suggests that anxiety experienced in interacting with others appears to increase the sensitivity to recognizing anger and disgust, but not anxiety experienced at the prospect of being observed. This study further supports the possibility of differential functioning of two types of social anxiety.

An ecological model to better understand suicide among Aboriginals of Canada

LALIBERTÉ, A. (North Queensland Health)
arlene_laliberte@health.qld.gov.au

Aboriginals face increasing rates of psychosocial problems. Suicide and violent death are the two first leading causes of mortality among Canadian Aboriginals. Researchers suspect risk factors on all ecological levels affecting personal development. However, little is known on the specific circumstances surrounding suicide in Aboriginal communities and even less scientific knowledge exists on the people who end their lives. This poster presents the highlights of a retrospective psychological autopsy study that extensively analysed the life trajectories of 30 Canadian Aboriginal suicides. Using the ecological model as a general framework to contextualise the suicides, this presentation offers a description of the socio-demographic characteristics of the four participating communities, the general characteristics of the suicide cases, highlights of the childhood experiences of care and abuse, the life events experienced during the 12 months preceding death as well as the context in which the suicides occurred. The interrelation and synergy of factors as well as avenues for prevention and further research themes are also identified and discussed.

The job analysis of school counselors' performance in South Korea

LEE, JH., CHOI, BY., & PARK, YM. (Korea University)
paul007@hanmail.net

The increased severity of adolescents' psychological problems has caused decreasing quality of educational outcomes in South Korea. School teachers did not have enough specialized ability to solve the psychological problems, so full-time professional school counselors were hired in the schools. However, despite the new school counselling system, established since 2005, school counselors find it difficult to concentrate on assisting students. As there are no clear guidelines of school counselor performance, school counselors frequently face non-counselling tasks (e.g., teaching). According to several studies (e.g., Bowers, Hatch, & Schwallie-Giddis, 2003), the most disruptive thing of managing the counselling program is unrelated counselling duties, especially administrative tasks. Although several theoretical studies have been published, few empirical studies have been conducted to provide guidelines of job-performance for school counselors. Therefore, this study aimed to explore the components (e.g.,

roles, duties, and functions) that comprise professional school counselors' job-performance. To achieve this purpose, a factor analysis was conducted with a sample of 144 professional school counselors in South Korea. The results showed that seven-domains appeared to be the best in terms of the meaningfulness of the job structure (individual counselling, individual consultation, small group counselling, large group guidance, test administration, psychological evaluation, and coordination). The structural model was achieved by specifying a restricted factor pattern allowing the items to load only on their respective scales, which then loaded on a set of second order factors. Four clear second-order factors were identified (Factor 1 = individual practice, Factor 2 = group practice, Factor 3 = psychological assessment, Factor 4 = coordination). The goodness of fit index (e.g., GFI, CFI, and RMSEA) indicated an acceptable fit of the model to the data. In addition, the results indicated that very few school counselors conducted small group counselling and large group guidance. Most school counselors reported that individual counselling and coordination are the most important job duties among their various roles. These findings are expected to offer the structure to develop standardized job guidelines for school counselors. In addition, the findings could apply when revising or developing the curricula of school counselling programs and continuing education programs.

A typology of academic burnout in Korean adolescents

LEE, SM., JIN, Y., LEE, J., SHIN, HJ., & KIM, YB. (Korea University)

leesang@korea.ac.kr

Studies have provided evidence that school issues are generally a concern felt among adolescents around the world, although for Asian countries such as Korea, the pressure to perform in school is more acute (Friedman, 1991; Huan, Yeo, & Chong, 2006; Isralowitz & Ong, 1990). Although students are neither employed nor do they hold jobs, their core activities can be considered "work". Hence, being a work-related phenomenon, burnout may also exist in students, where it manifests itself by feeling exhausted because of study demands, having a cynical and detached attitude towards one's study, and feeling incompetent as a student (McCarthy et al., 1990; Meier & Schmeck, 1985). Because students' academic burnout has been brought to attention by research in recent years (Gan & Shang, 2007), Schaufeli et al. (2002) developed the student version of the Maslach Burnout Inventory (i.e., MBI-SS), and demonstrated cross-cultural validity of this measure. Whereas previous research tends to consider burnout as a homogenous phenomenon with unitary and global terms (Farber, 1998), new research (Loo, 2004; Lee et al., 2009) points to the value of using a system of classifying burnout to form the patterns (types or profiles) that reflect the more consistent elements of burnout. In this study, we determine specific burnout typologies among Korean adolescents. The sample of this study consisted of 411 students recruited from several email lists or groups (e.g., Email Group of Korean Youth Counselling Institute). The data were gathered from various regions of South Korea through a web-based survey. In this study, through the cluster analysis, we identified four distinct derived patterns from a cluster analysis; well-functioning students, distressed students, persevering students, and laissez-faire students. We also identified these distinct patterns of academic burnout that differentially influence student's self esteem, study motivation, and academic achievement. The results of this study could be utilized by student support services to help students cope effectively with the academic stresses in the school.

The significance of body image in pre-adolescent children

LEWIS, V., & DUNN, J. (University of Canberra)

vivienne.lewis@canberra.edu.au

Dissatisfaction with the body has been widely studied in adult women and adolescent girls and is seen as a normative discontent for women in Australian society (Tiggeman, 2008). However, little is known about pre-adolescent children's body image. Research on adolescents and adults has shown that dissatisfaction with the body has strong links with poor self-esteem and well-being (Evans, 2003; Cattarin and Thompson, 1994). Recently researchers have found that children as young as six are reporting dissatisfaction with their bodies but little more than this is known (Dohnt & Tiggemann, 2006). Therefore this study undertook to uncover pre-adolescent children's body image perceptions including age and gender differences. The study performed a longitudinal comparison with Patrick's (2007) study, with 21 boys and girls now aged 11 and 12 years (previously 10 and 11 years), and a cross-sectional analysis with 78 children aged 10-11 years from a private school in Canberra, Australia. Participants completed the Figure Perception and Preference Rating Scale, the 9-item Social Physique Anxiety Scale, the Fear of Negative Evaluation scale and the Body Area Satisfaction Scale. Longitudinal results indicated no

significant differences than reported 12 months ago indicating no change in perceptions of the body in the pre-adolescent years 12 months later. Both boys and girls reported a desire to be thinner, with girls reporting more social physique anxiety. Cross-sectional analyses revealed no gender differences in figure discrepancy scores, weight satisfaction or muscle satisfaction. Fear of negative evaluation and figure discrepancy were, in combination, strong predictors of social physique anxiety levels in this preadolescent sample. These findings have important implications for early intervention to prevent mental health concerns in our children as they develop to become adolescents and the need to research the body image of children even younger than this sample.

The body image of Muslim women in Australian

LEWIS, V., & KALIK, S. (University of Canberra)

vivienne.lewis@canberra.edu.au

Much research has been conducted on 'Western' women's body image finding that poor body perceptions are related to reduced well-being and mental health issues. Research has found that one of the factors involved in the body perceptions of women is related to socio-cultural ideals of western beauty which is portrayed as a white, thin, tall woman. Singapore, a traditionally mixed race society including Muslims, research for example has found an increasingly westernized society with ideals of beauty similar to that of Australian, British and American women. As in Australian society, Singapore experiences comparison rates of females being diagnosed with eating disorders. It is this portrayal of the ideal women as being thin that has been shown to be related to body dissatisfaction and subsequent negative behaviours, thoughts and feelings including the development of eating disorders in many societies including Singapore. Interestingly, one group of women that have not been studied to date are Muslim women in a western society who retain their Muslim identity through their appearance in public (i.e., through their covering up of the body, head and sometimes face). For these women, the body is not on show in public. Given this are these women feeling the same pressures to attain the unrealistic ideal western or westernized women do or are they somehow protected by their cultural dress and beliefs? In order to try and answer such questions, focus groups were conducted with Muslim women in the Canberra community. Questions and discussion were centered around body perceptions, image, ideals and perceived sociocultural pressure. This paper reports on the outcome of these focus groups.

The role of cultural values and collective self-esteem on acculturation stress, coping strategies, and mental health of international students in South Korea

LIM, N., SUNG, NK., LEE, YY., KANG, CM., & YANG, E., (Korea University, South Korea)

psyartlim@empal.com

The rapid increase of international students in South Korea generated a need for understanding facilitating their adjustment process (Ministry of Education, Science and Technology, 2007). Previous studies on international students found several factors associated with acculturation stress, such as cultural values, language proficiency, self-esteem, and prior cross-cultural experience (Ward, Okura, Kennedy & Kojima, 1998; Ward & Rana-Dueba, 1999). However, these studies were mainly conducted in the Western societies. Thus, empirical research should be conducted to examine if similar patterns would be found in a collectivism-oriented society such as South Korea. This study specifically focuses on the role of cultural values and collective self-esteem, as they appear important to achieve integration, or biculturalism, which is proposed as the most adaptive attitude in the acculturation model (Berry & Kim, 1988). The adherence to collectivistic cultural values may help international students to integrate the dominant culture of South Korea (Lee, 2006). In addition, high collective self-esteem, or positive evaluation of one's social membership, can help them to maintain their original cultural identity (Barry, 2005). Failure to achieve integration can lead to greater acculturation stress (Berry & Annis, 1974; Smart & Smart, 1995) and difficulties in coping. This study is designed to investigate their relationships with mental health of international students. Specifically, it will investigate the effect of cultural values and collective self-esteem on mental health of international students in South Korea mediated by acculturation stress and coping strategies. Participants will be approximately 150 international college students in South Korea. They will be asked to complete a survey assessing collective self-esteem, collectivistic and individualistic values, acculturation stress, coping strategies, and depression. Structural equation modeling will be used to test the hypothesized model. This study will help to understand unique challenges faced by international students in South Korea. It will also offer further information about common and distinctive patterns of their adjustment in South Korea and other Western societies.

Getting heard: The development of culturally-relevant measures for Australian farming families

McSHANE, C., QUIRK, F., & SWINBOURNE, A. (James Cook University)

connar.mcshane@jcu.edu.au

With the number of farming families in Australia steadily declining, it seems that farming is being forgotten. As farming is a primary industry in Australia, these statistics are alarming and raise the question as to why this is occurring. Farming families are faced with many unique challenges; however one that is of particular interest is the impact the business and home environment has on farming families' mental health. Farming as a business is unlike most others as farmers live and work in the same geographical location and often with the same people. This results in blurred roles, relationships and boundaries that can lead to an increased risk of conflict. Previous research conducted by the authors in 2007 established that there was a unique work-home interface present for farmers and that there was a relationship between this environment, major stressors, and psychological distress. However, it was clear there were limitations associated with the measures used as they had not been validated for use with farmers in Australia. The current investigation aims to develop measures relevant to the unique work-home environment of farming families, the issues of main concern, and effective coping strategies. This presentation will report on qualitative data from interviews with farming families.

The effect of self-deception on the relationship between trait emotional intelligence and wellbeing

MANNION, G. (University of Southern Queensland)

gmannon@bigpond.net.au

A significant amount of recent research has been undertaken in the psychological research domain on the constructs of emotional intelligence and wellbeing. This research has shown a positive relationship between the level of emotional intelligence and the wellbeing of an individual. Limited research has been conducted on the potential mediating factor of self-deception on the measurement of emotional intelligence and of wellbeing, and the relationship between the two constructs. This study aimed to investigate whether self-deception, as measured by the Balanced Inventory of Desirable Responding (BIDR, Paulhus, 1984), does mediate the relationship between emotional intelligence and wellbeing. Emotional intelligence was measured using the Trait Emotional Intelligence Questionnaire – Short Form (TEIQue-SF, Petrides & Furnham, 2006). Wellbeing was measured using two instruments, the Personal Project Systems Rating Scale (PPSRS, Little, 1983), and the Kessler Psychological Distress Scale (K10, Kessler et al., 2002). It was hypothesised that the emotional intelligence of an individual is related to the levels of wellbeing of that individual, and that self-deception levels will be a mediating variable in the reported relationship between emotional intelligence and wellbeing. One hundred and one participants returned the questionnaire package, at a response rate of 100%. Ninety nine of these questionnaire packages were retained for analysis. Two simultaneous multiple regression analyses were performed to assess the mediation effects of self-deception on the relationship between emotional intelligence and on both measures of wellbeing. The results of these analyses showed a strong relationship between emotional intelligence and wellbeing. The results further showed that a partial mediation effect of self-deception was present in the relationship between emotional intelligence and hedonic wellbeing, but not in the relationship between emotional intelligence and eudaimonic wellbeing. These findings confirm the previously reported relationship between emotional intelligence and wellbeing. The findings raise some interesting questions for future research, including the relationship between self-deception and both emotional intelligence and wellbeing, and the distinction between hedonic and eudaimonic wellbeing when examining the mediating effect of self-deception. Practicing psychologists may gain a better understanding of the relationship between emotional intelligence and wellbeing, which can be used to assist individuals to achieve optimal wellbeing. An improved understanding of the influence of self-deception on this relationship may also benefit therapeutic practice.

Volunteering amongst mature Australians: Socio-structural and motivational factors

MELLING, B. & CHESTER, A. (RMIT University)

belinda.melling@student.rmit.edu.au

In the absence of Australian studies of volunteering amongst older adults, this study examined the relevance of two theoretical approaches – socio-structural resources theory and the functional analysis of behaviour theory – to understand volunteer behaviour of older adults. The aims of this study were: 1) to ascertain whether volunteering is associated with greater well-being in older Australians, 2) to identify

whether volunteers and non-volunteers differ in their socio-structural resources, 3) to explore older adults' motivations for volunteering, and 4) to investigate the relationship between motivation and connectedness, incorporating perceived appreciation and respect by the organisation and the community. To meet these aims, 140 individuals (91 female, 49 males) aged 55 years and over (85 volunteers, 55 non-volunteers) were recruited. Contrary to prediction, well-being was not found to differ between volunteers and non-volunteers. Relationship status was found to be the only socio-structural variable to differ between volunteers and non-volunteers, with volunteers more likely to be single than in a relationship. As predicted, the desire to express personal values was the most important motivation for volunteering amongst older adults and gaining career-related experience was the least important. Also as predicted, a positive relationship was noted between the value motive for volunteering and connectedness. The failure to establish well-being and socio-structural resource differences between volunteers and non-volunteers was concluded to reflect sampling bias and thus considerations for future research directions are proposed. The implications of understanding motives for volunteering for the recruitment and retention of older adults are discussed.

Sucking object fixation: Infant oral tactile imprinting

MOBBS, E.J.G. (The University of Sydney)

elsiem@med.usyd.edu.au

Freudian explanation of thumb sucking is commonly interpreted as evidence of a need to suck. Access to comparative mammalian behaviour is now quicker and easier to obtain than what was available to Sigmund Freud. Are there similarities in behaviour across the mammalian spectrum? It could be expected that evolution would not only link structure and function (as in breastfeeding) but also behaviour. Nipple preference, a sucking object fixation, is recognised as a behaviour of human infants. Is nipple preference present in other mammals? A literature and web search explored mammalian sucking object fixation. Terms which are found in reference to this behaviour are mixed and related to the academic discipline. In veterinary work the reference to sucking object fixation in pigs is termed "teat territoriality", and in sheep as "teat specificity". Piglets, if they are marked with numbers in numerical order while sucking, will line up in numerical order again after being removed from and then returned to the sow. Other terms found, for example in zoology, are teat choice, teat selection and for midwives, nipple confusion. There is recorded that the newborn mammal quickly orally discriminates one sucking object from another. The ewe will move away from the flock to give birth: the fact that the newborn lamb may choose to suck from a too close non-parturient ewe results in the lamb starving to death: this suggests that smell is not a predominant factor in teat selection. Likewise newborn foals may choose to suck from inanimate stall objects rather than the mare. A nipple sucking fixation is recorded in many mammals, including dogs and cats, across the mammalian spectrum. The intensity of the oral tactile fixation can easily be explained in terms of imprinting on the biological stimulus feature or on a decoy, such as thumbs and dummies. Self soothing behaviour of thumb sucking, as demonstrated in Harlow's monkey experiments occurred in the circumstance of maternal deprivation. Youtube provides many videos of dogs and cats, removed early from their mothers, developing what are sometimes described as "obsessive compulsive disorder" sucking fixations on a specific object or body part.

The relationship between attitudes and intention in seeking help: A comparative study of Korean and American college students

NAM, SK., KIM, AR., & LEE, MK. (Korea University)

skyungn@hanmail.net

Intentions are the most immediate determinant and strongest predictors of behaviours such as help seeking (Ajzen, 1985; Sutton, 1998). Underlying an individual's behavioural intent is the person's attitudes about the behaviour (i.e., positive or negative feelings about the behaviour). Various factors (e.g., gender and race) have been examined in order to understand the intention toward utilization of psychological services, which, in turn, affect help-seeking behaviours. Among them, the attitude-toward-seeking-help variable has been the most consistent predictor of intentions in seeking psychological help (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Morgan et al., 2003; Vogel & Wester, 2003). For example, Vogel and West (2003, 2005) reported that attitude was strongly related to intention, especially in the interpersonal problem subscale. In addition, strong relationships between attitudes and intention toward seeking help was also found in Shaffer, Vogel and Wei's study (2006). On the other hand, in Korea, slightly different results have been found in several studies (e.g., Lee & Son, 2007; Shin & Ahn, 2005).

The strength of the relationship between attitude and intention of seeking help was reported to be much smaller than the results in other studies conducted in U.S and western countries. It was hypothesized that Asian cultural values (i.e., family hierarchy, emotional restraint, avoidance of shame, and saving “face”) as the prominent factors that influence the relationship between attitude and intention toward seeking professional psychological help. In this study, we examined the relationship between attitude and intention toward seeking help as these processes relate to cultural values among Korean and American college students. Specifically, this study investigated social and/or self stigma as well as normative belief as a mediator and/or moderator which influences the relationship between the attitudes toward seeking help and intention. The results and implications are discussed based on the TPB (Theory of Planned Behaviour) framework, reflecting Korean traditional culture (i.e., shame and saving one’s face).

Canvassing the emotions: Women, creativity and mental health in context

NORTHFIELD, S. (Victoria University)

sal@infoxchange.net.au

This poster reports on research with women who have an experience of mental ill health or psychological trauma and who have produced art in psychiatric institutions or in community settings. Spanning the 1950s to the present day, the research concentrates upon the role of creativity in women’s lives and the use of visual art in mental health services in Victoria. The poster summaries the three phases of the research process including, an historical and cultural overview, a touring exhibition of women’s artworks and finally a series of interviews with women exploring the relationship between women’s creativity and wellbeing. These interviews highlight women’s views about the meanings and functions of creativity in their lives. Women’s artworks and words are displayed to provide a poignant historical and contemporary snapshot of the complexities encompassing the interaction between creativity, gender and wellbeing. The women behind the paintbrush, pencil, pastel, charcoal or needle provide perspectives which challenge traditional representations of women and offer reflections on a society which has frequently marginalised women experiencing mental ill health. Such knowledge enables a richer appreciation of the challenges for current and future mental health services to consider the role that creativity has to play in the wellbeing of Australian women.

Does reinforcement value modulate reach-to-grasp?

PAINTER, DR., KRITIKOS, A. (University of Queensland), & RAYMOND, J. (Bangor University, Wales)

david.ross.painter@gmail.com

Researchers argue that a target object’s spatial properties are more fundamental to motor control than its perceptual properties. Increasing evidence suggests, however, that perceptual properties are also important. The current study investigated whether reinforcement value, which depends on perceptual properties, influences reach-to-grasp movements. Eighteen participants learned the reinforcement values (punishment, neutral, reward) associated with drinking flutes in an instrumental learning task. Participants reached and grasped the same flutes, moving them closer (simulating approach behaviour) or further away (avoidance). As hypothesised, reaching was faster and less variable toward more rewarding flutes compared with more punishing flutes. Against predictions, the effect of reinforcement value did not depend on the executed action (approach vs. avoidance). Grasp parameters were unaffected by reinforcement value. These results suggest that reinforcement value can increase the efficiency of reaches toward rewards. Additionally, they suggest that reinforcement value does not encode for distinct behavioural categories. It is concluded that ongoing reinforcement and reinforcement value might have different effects on how interactions with objects unfold.

Implicit but not explicit dysfunctional beliefs predict future depressive symptomatology

PHILLIPS, WJ., HINE, DW., & DUNSTAN, DA. (University of New England)

wphillip@une.edu.au

This study assessed the relative power of implicit and explicit dysfunctional beliefs to predict current and future depressive symptoms in a sample of Australian undergraduates. Dual process theories advocate that implicit and explicit cognitions originate from two distinct information processing systems. Implicit cognitions are thought to arise from a system that operates automatically, requires minimal cognitive effort, and is guided by activated memory networks. In contrast, explicit cognitions are believed to arise from a system that is conscious, deliberate, effortful, and guided by rule-based learning. Beevers (2005) proposed that cognitive vulnerability to depression begins with the activation of implicit cognitions that

remain uncorrected by subsequent explicit processing. Thus, implicit cognitions are hypothesized to be critical determinants of an individual's long-term susceptibility to depression. The results of our study supported this hypothesis. A cross sectional analysis showed that both implicit dysfunctional beliefs (assessed by the Scrambled Sentences Task) and explicit dysfunctional beliefs (assessed by the Dysfunctional Attitudes Scale) predicted current depressive symptomatology. However, a longitudinal analysis showed that implicit, but not explicit, dysfunctional beliefs predicted depressive symptoms 3 months later. These results support previous findings by Franck, De Raedt, and De Houwer (2007) in which implicit, but not explicit, self esteem predicted future depressive symptoms. Clarifying the role of implicit cognitions in depressive vulnerability may inform the development of more effective treatments for individuals who experience chronic and relapsing depression.

Trading-off indignities for a positive experience of work

PIZER, MK., & LONG, S. (RMIT University)
mpizer@netspace.net.au

This paper illustrates the importance of dignity for a positive experience of work. It demonstrates that there are multiple ways that dignity can be denied and preserved, and that an individual attempts to trade-off his or her particular experiences of indignity in an attempt to experience work as dignified overall. It is apparent that there is one indignity that cannot be traded-off. It is the indignity of being denied the opportunity to pursue one's own career aspirations. This source of dignity, the freedom to fashion yourself into whatever you choose (Pico della Mirandola, [1486] 1956), is a fundamental human dignity. In this research comprising 10 in-depth case studies, the five cases denied this dignity are all relatively young and early in their career. It is unlikely that they have reached their full potential. Hence, to have this opportunity denied is experienced as a social injustice and it is a matter of identity. It is the worst kind of misrecognition in the workplace because it denies the individual the possibility of becoming who he or she wants to be in the organisational context. It is this form of misrecognition with which these cases are unable to collude and satisfactorily resolve. As such, they are unable to find and bring their best selves to the workplace. Theoretically, the recognition they seek can be provided by anyone in the organisation in a position to provide opportunities to achieve and to grow. In this research, as is typically found in organisations, it is their appointed leader who is in such a position, and whose recognition therefore matters. Positive leader-member relations are therefore critical for experiencing work as dignified overall. The research indicates that these positive leader-member relations take a particular form. This is discussed. A notable finding is that only two of the five cases who enjoy positive leader-member relations are currently thriving in their career. What distinguishes these cases is presented and the implications considered.

The role of screeners in initial diagnosis

POWER, M., & LAMMI, E. (ACER)
power@acer.edu.au

Assessment and evidence-based data are critical components of diagnosis across the board in Psychology. Logistically, it is often difficult to apportion the time for full testing when timetables and session numbers are limited. Screeners provide a constructive option for gathering initial data and assisting in treatment direction. They can also facilitate early intervention and thus optimize likelihood of successful outcomes. This poster will consider three examples of Australian screeners in the areas of Autism, Neurocognition and a diagnostic test that screens for more than 20 of the most prevalent psychiatric and psychological disorders.

Parenting practices and the development of executive function and theory of mind in 3- to 5-year-old Singaporean children

QU, L., KOH, SL., WU, JH., HON, XLC., & NG, JX. (Nanyang Technological University, Singapore)
quli@ntu.edu.sg

The current study investigated how parenting practices influence the development of executive function and theory of mind in 3- to 5-year-old Singaporean children. One hundred and five children of Chinese, Malay, and Indian and other ethnicities were given two executive function tasks, the Dimensional Change Card Sort, and the Less-is-more task, and two theories of mind tasks, the Unexpected Contents False Belief task, the Unexpected Location False Belief task, as well as the Peabody Picture Vocabulary Test and the Forward Digital Span task. In addition, their parents filled in the Parenting Practices

Questionnaire. Results showed that, similar to western countries, in Singapore, authoritative parenting styles are associated with children's advanced development of language and executive function; however, different from western society, in Singapore, directly telling children what parents want and believe was associated with children's superior understanding of others' belief and thinking. Thus, the interaction between parenting practice and early development of executive function and theory of mind appear to be universal and culture-specific at the same time.

The relationships between cyber and face-to-face bullying and depressive symptoms among adolescents in Western Australia

READ, M., DANDY, J., HARMS, C., & CROSS, D. (Edith Cowan University)
m.read@ecu.edu.au

Cyber bullying is defined as a form of aggression used primarily by adolescents to inflict harm on others through the use of electronic technology. Although the effects of face-to-face forms of bullying have been well documented in the psychological literature, very little is known in regards to the effects this newer form of bullying have on adolescents. Nonetheless, researchers have noted a number of elements which may make cyber bullying different from more traditional face-to-face means (increased access to communicate with targets; larger audience sizes available online; lack of authority figures policing online behaviours; increased anonymity and disinhibition). Although cyber bullying is often described as more harmful than other forms of bullying, to date no studies have examined whether the psychological impact is greater for those who report being cyber bullied in comparison with those who report being face to face bullied. The present study examined the relationship between being bullied (cyber and face to face) and levels of depressive symptoms as measured by the DASS. Using a cross-sectional survey design, 1933 students aged between 12 and 15 were recruited from 12 Western Australian metro and rural, government and non-government schools. Analyses revealed that students who reported being both cyber and face-to-face bullied scored significantly higher levels of depressive symptoms in comparison to those who were face-to-face bullied only, those cyber bullied only, and those not bullied at all. The research highlights the negative psychological effect (as measured by depression) of being both cyber and face-to-face bullied. The findings validate the need to include a cyber bullying element to existing or newly developed interventions which aim to reduce bullying behaviours among school aged students. Some of the results reported here were presented previously at the Vario Health Conference (2008) before the project was completed.

Reassessing depression in men: Factorial validity of the expanded Gotland Male Depression Scale

RICE, SM., & FALLON, BJ. (Australian Catholic University)
simon.rice@acu.edu.au

The adequacy, assessment, and diagnosis of depression within the male population have become areas of significant interest to depression researchers. The aim of this study was to evaluate the factorial validity of the expanded Gotland Male Depression Scale (GMDS) in an Australian sample. The GMDS was developed to screen for symptoms of depression and distress consistent with masculine gender norms emphasising stoicism and emotional constriction. Data was collected from a community sample of 692 participants (males = 329). Principal components analysis on the calibration group ($N= 342$) indicated 3 factors accounting for 49.81% of the variance. Factors reported are consistent with recent research on men and depression and equate to somatic, prototypic, and externalising symptoms. Confirmatory factor analysis on data from a separate validation group ($N= 342$) validated a three factor model. The constraint of one item inquiring about disquiet and uneasiness, resulted in a very well fitting model ($chi-square / df = 2.07$; CFI = .95; TLI = .94; RMSEA = .056). The scale items and model are presented, and implications for assessment and future research examining men and depression are discussed.

University students' alcohol consumption: Combined influence of parents and peers

ROBERTS, RM., WILKINSON, J. (University of Adelaide), & WATTS, D. (Drug and Alcohol Services, South Australia)
rachel.roberts@adelaide.edu.au

Alcohol although legal has been identified as the most commonly used and misused drug in Australia. University students are large consumers of alcohol and at risk of alcohol-related harm. Therefore, there is a need to understand factors that both encourage and discourage this use. However, the body of

literature concerning consumption in Australian University students is limited. Moreover, within this literature there is debate surrounding the relative influence of two key social factors; parents and peers. The current study aimed to examine the combined influence of parents and peers, predicting that when combined, peers would exert a greater influence on the participants' consumption, however this would not negate the influence of parents. The participants were 59 males and 174 females aged 18-21 years. They completed an online survey about their own alcohol attitudes and alcohol consumption and their perceptions of their; best friend's, the average university student's, their mother's and their father's alcohol consumption and alcohol attitudes. The main dependent variable was their own consumption, with the independent variables being perceived peers' and parents' consumption and attitudes. Correlation analyses were used to determine the individual parental and peer effects (both consumption and attitudes) on the participant's alcohol consumption. Positive associations existed between the participant's own consumption and the individual consumption and attitudes of their parents and peers (as perceived by the participant). However, the main hypothesis was unsupported as a multiple regression indicated that when parental and peer variables were combined, none of the parental variables (mother's use, father's use and the two attitudinal variables— parental permissiveness and parental disapproval) significantly affected the participants' consumption level. These findings, (that peers negate the influences of parents), have implications for preventative and intervention programs suggesting such programs should incorporate aspects related to minimising the social influence of peers alone.

Are the autism and positive schizotypy spectra diametrically opposed?

RUSSELL-SMITH, S., & MAYBERY, M. (University of Western Australia)

russes03@student.uwa.edu.au

The aim of this study was to examine the accuracy of Crespi and Badcock's (2008) claim that the autism and positive schizophrenia spectra are diametrically opposed. Crespi and Badcock (2008) propose that, mediated by genomic imprinting, autism is associated with a general pattern of overgrowth while schizophrenia is associated with a general pattern of undergrowth, resulting in some directly opposite cognitive profiles for the two disorders (e.g., preference for local-global processing and verbal and non-verbal ability). This study assessed their claim by examining these profiles in two groups of students separated on autistic-like traits but matched on positive schizotypy traits, and a further two groups of students separated on positive schizotypy traits but matched on autistic-like traits ($n = 20$ for each group). To further investigate these authors' claim, the correlation between positive schizotypy and autistic-like traits was investigated. While the two spectra appear to be diametrically opposed with regard to preference for local versus global processing, this study offers little additional support for Crespi and Badcock's (2008) claim.

The relation of early environmental experience to shame and self-criticism: Psychological pathways to depression

SANDQUIST, KGE., GRENYER, BFS., & CAPUTI, P. (University of Wollongong)

ks429@uow.edu.au

Depression is the most prevalent mental health problem and personality traits have been implicated in accounting for differences in the course of depressive episodes. Self-criticism has been identified as a particularly malignant personality variable that confers vulnerability for the development of depression and has repeatedly come forward as a variable that impedes improvement in treatment of depression. Although impressive literature on the personality variable self-criticism and depressive symptoms exists, few studies have examined the origins of a self-critical style and little is currently known as to how the self-conscious affect of shame may impact this link. The aim of this study was thus to test a more comprehensive path model of the development of depressive symptoms. Participants were 201 undergraduate students who completed measures of early environmental experience, vulnerability to depression, self-conscious affects and current depressive symptoms. The structural equation model identified remembered early psychological experience in the development of particular cognitive and emotional styles. Several pathways to depressive symptoms were found. The implication of these findings for theory and practice are discussed.

Anxiety and working memory: Some new light on the processing efficiency theory

SCOTT, E., & EDWARDS, M. (Bond University)

lscot81@eq.edu.au

Processing Efficiency Theory (PET; Eysenck & Calvo, 1992) predicts that elevated state anxiety might contribute to deficits in working memory (WM) performance. The present research examined the effects of state anxiety and trait anxiety on the performance of tasks thought to tap the central executive (reading span task), visuo-spatial sketchpad (analogical mapping task) and phonological loop (forward and backward digit span tasks), components of the WM model proposed by Baddeley and Hitch (1974). A student sample was employed and participants were assigned to high trait anxious (HTA; $n = 30$) or low trait anxious (LTA; $n = 30$) groups based on a median split of questionnaire scores, with state anxiety manipulated through the threat of electric shock. Half the participants in each Trait Anxiety group were randomly assigned to a Shock Threat or Shock Safe Condition based on their arrival at the laboratory. Contrary to the predictions of PET, there were no significant state or trait anxiety group differences on phonological loop performance as indexed by the digit span task. In support of PET, however, participants in the Shock Threat group recalled significantly fewer last-words and cloze test words than participants in the Shock Safe group on the reading span task (Daneman & Carpenter, 1980) which was employed to tap the central executive. In partial support of PET, significant Trait Anxiety x Shock Condition interactions were found on the mapping tasks (Tohill & Holyoak, 2000) utilized to tap the visuo-spatial sketchpad performance. The pattern of these interactions suggests that elevated state anxiety might contribute to performance dissociations on visuo-spatial tasks, but that this effect is dependent on the individual's trait anxiety status. Results are discussed in terms of PET and clinical implications are suggested.

Change or onset?: Auditory attentional capture by unique intensity tones

TERRY, J., & STEVENS, C. (University of Western Sydney)

j.terry@uws.edu.au

An experiment brings together attentional capture and changing intensity (loudness) to investigate three hypotheses in the auditory modality. In an adaptation of hypotheses investigated in the visual attentional capture field, the *dynamic default hypothesis* predicts attentional capture from changing intensity (60 dB - 90 dB and 90 dB - 60 dB), relative to static intensity (60 dB and 90 dB) tones, indicated by slower reaction times (RT) and higher error rates in a frequency discrimination task. The *behavioural urgency hypothesis* predicts attentional capture by looming (60 dB - 90 dB), but not receding (90 dB - 60 dB) tones and the *new object hypothesis* predicts attentional capture by high intensity onset (90 dB static and 90 dB - 60 dB), relative to low intensity onset (60 dB static and 60 dB - 90 dB) tones. Listening to rapid serial presentations of 6 sine tones, 22 participants discriminated a target tone as being higher or lower in frequency (pitch) from surrounding tones, one of which was of a unique changing or static intensity. Higher error rates were associated with receding, compared with looming tones, and high intensity onset static, compared with low intensity onset static tones. Findings provide support for the new object hypothesis, suggesting that unique high intensity onsets capture attention because they signal the appearance of a new object in the auditory scene. It is proposed that an object file is created at the presentation of the first tone in the series, and subsequent similar tones are integrated into the same file. At the presentation of a high intensity onset tone, a new object file is created because the high intensity onset tone cannot be integrated into the original file. Creation of a new object file requires resources and hence the encoding of the frequency target is interrupted.

Conflict between adolescents and parents: Perspectives from middle and senior school students in a Catholic high school in the Northern Territory

VAN RODEN, A., & FORMAINI, H. (Australian College of Applied Psychology)

mynmyn@bigpond.com

This study explored parent and adolescent conflict from an adolescent perspective. Data was gathered across 162 middle and senior school students attending a Catholic high school in the Northern Territory. A 2-item conflict and resolution questionnaire was utilised to gather qualitative data on the adolescent experience of conflict with parents, and their perspectives on solutions to this conflict. The results of this study were consistent with the literature. The results also indicated that while adolescents acknowledge and clearly identify areas of conflict with their parents, they are mindful of ways by which it can be addressed and resolved. It is anticipated that the results will inform and broaden ongoing research in the

Northern Territory on issues specific to local families. Further to this, there is a strong hope for future individual and family intervention stemming from the desire for effective family communication, inherent in the adolescents themselves.

“I had nothing to do with her disappearance”: Linguistic cues to deception in the public and personal speech of a convicted murderer

VILLAR, G. (Charles Sturt University)*, ARCIULI, J. (University of Sydney), & MALLARD, D.*
gina_villar@optusnet.com.au

There is substantial empirical support in the deception literature to suggest that linguistic behaviour varies significantly between true and false statements. Such cues may lend themselves more readily to automation than many nonverbal cues, with important applications in forensic and judicial contexts. However, most previous research on linguistic cues has been conducted in the laboratory where it is difficult to simulate real-life high-stakes lies. In this study, externally verifiable fragments of truthful and deceptive speech of a convicted murderer were examined for the presence of key linguistic features implicated as indicators of deception: presence of ‘um’, presence of ‘uh’, modifiers, verbs, nouns, group-references and self-references. The speech data had been elicited under two different speech production conditions – media interviews and telephone conversations – and were examined using part-of-speech tagging and word concordance software. It was hypothesised that deceptive utterances would be more likely than truthful utterances to be associated with increased use of nouns, verbs, modifiers and group references and decreased use of ‘um’s, ‘uh’s and self-references. It was an open empirical question as to whether the two different speech production contexts would reveal differences in the use of particular cues. The findings provided some support for the hypotheses. The presence of ‘um’ was found to discriminate significantly between truthful and deceptive utterances in the predicted direction in both speech production conditions, with ‘um’ being used more frequently during truthful than deceptive utterances. In addition, increased use of modifiers was positively associated with deceptive speech in the telephone conversations condition while verbs were more frequent in truthful speech in the media interviews condition. The current study demonstrates the discriminative ability of the presence of ‘um’, verbs and modifiers and suggests that in an attempt to successfully deceive, humans alter their linguistic behaviour, even during real-life high-stakes lies.

First time fathers whose partners have an "at risk pregnancy": Some findings related to the man's transition to fatherhood

WILKIN, C. (Charles Darwin University)
catherine.wilkin@cdu.edu.au

While there is a developing body of literature related to the transition to fatherhood during and following a ‘normal’ first pregnancy (Barclay, et al, 1996; Boyce, et al, 2007; Jordan, 1990;), scant attention has been paid to the transition to first-time fatherhood where there is an ‘other than’ normal pregnancy. Men identify complex feelings related to becoming a new father, predominantly confusion, related to anxiety, a need to know what is happening, and feelings of powerlessness and ambivalence (Barclay, et al, 1996; Boyce, et al, 2007). However, it is reasonable to expect that these feelings may be exacerbated by the worry of a partner experiencing an ‘other than’ normal delivery. While the bulk of attention during this period is on the mother-infant dyad, the pregnant woman’s primary source of support is commonly her partner. If he is having difficulty in making the transition to fatherhood because of raised negative emotional levels, this will impact on the woman because of impaired information transmission, lowered or altered emotional support and resentment from the father. This paper will present the findings from a qualitative study that shows that men whose partners have an at risk pregnancy do travel a different transitional path to other men. It is essential that pregnant women as well as midwives, know how such fathers are feeling at a difficult time, so that support and encouragement is fostered for the newly developing family, and also ensure that family dynamics and subsequent pregnancies are not negatively affected.

The relations of parental attachment and interparental conflicts with interpersonal patterns of children

WOO, SB., KIM, HJ., KANG, CM. (Korea University, South Korea)*, & CHUN, YM. (Choryang Elementary School, South Korea), & YANG, E.*

afterstring@korea.ac.kr

The development of interpersonal patterns of children is directly and indirectly affected by their parents. The strong attachment formed by the health interaction between children and parents provides a healthy internal working model (Bowlby, 1969, 1973), which serves as a platform for future relational patterns. In addition, interparental conflicts are often associated with low self-esteem, depression, and negative peer relationship of children (Cummings, Iannotti, & Zahn-Waxler, 1985; Grych & Fincham, 1990), possibly by making them vulnerable to relational problems. This study investigated the peer relationship patterns of male and female children and their relationship with parental attachment and interparental conflicts. Participants were 134 male and 132 female children. Interpersonal patterns of children were measured by Children's Interpersonal Pattern Scale (Ahn, 1979; Shin, 1992) developed based on Three-Dimensional Theory of Interpersonal Behaviour (Schutz, 1958). Children's Perception of Interparental Conflict Scale (CPIC; Grych et al., 1992) and Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) were used to assess interparental conflicts and parental attachment, respectively. Cluster analyses yielded three clusters for each male and female group based on interpersonal patterns. Three clusters were defined as intimate, control, and avoidant groups. The differences in parental attachment and interparental conflicts between three clusters were examined using ANOVA and Scheffe post-doc tests for male and female groups, respectively. For male children, the intimate cluster showed stronger attachment to parents than the control and avoidance clusters, but no significant differences were found in interparental conflicts. For female children, clusters showed significant differences in both parental attachment and interparental conflicts. Post tests showed that the intimate cluster showed greater parental attachment than the avoidant clusters. With regard to interparental conflicts, the intimate cluster reported greater conflicts than the avoidant cluster. This study implies that the effect of parents on the development of interpersonal patterns of children may differ by gender. For male children, only parental attachment seems to be a significant predictor, while female children are affected by both their attachment to parents and the conflicts between parents.

The effects of reason and event saliency on health-related decisions

WOODS, L., & CHAN, AYC. (University of Wollongong)

lrw968@uow.edu.au

When deciding between two alternatives, we often choose the option which we believe will elicit the least amount of regret. However, when there is no alternative, 'good' option, other factors will be used to evaluate the situation and to make such decisions. This experiment explored how two such factors – event saliency and reason for action - may influence the amount of regret anticipated about the foregone option and on people's anticipated choice of behaviour in a health related context. We found that undergraduate participants who were prompted to imagine choosing to fulfil an internal desire (going on a holiday) instead of an external obligation (seeking expert diagnosis for suspected melanoma) anticipated significantly more regret than those who were prompted to imagine making the opposite choice. No significant difference in the amount of regret anticipated was found between participants who had to choose between two external obligations (attending an interstate family funeral vs. seeking expert diagnosis for suspected melanoma). We also asked how participants believed they would have acted had they actually been in the situation described. We expected participants to indicate that they would have chosen the action opposite to what was depicted in the story version (i.e., the action that would have avoided the negative outcome), especially if the outcome resulted from choosing to fulfil an internal desire over an external obligation. However, results did not reflect our expectations. Regardless of the outcome, no significant differences in participants' anticipated choice of action were found. Our findings suggest a dissociation between people's anticipated emotions and subsequent choice of action regarding important preventative health behaviour. Health promotion campaigns that use anticipated regret about bad health decisions to motivate proactive cancer prevention and diagnosis are unlikely to be effective, unless they emphasise more strongly that no competing social obligations or internal desires can override the importance of seeking timely diagnosis and treatment of cancers.

Tuition and the development of executive function in five- and six-years-olds

YAP, SH., SOON, JY., CHAN, YF., QIAN, NZ., TAN, JSY. & QU, L. (Nanyang Technological University, Singapore)

yaps0008@ntu.edu.sg

Executive function (EF) refers to many processes required for the conscious control of thought and action. It includes three main components, Working Memory, Response Inhibition, and Cognitive Flexibility (Miyake et al., 2000). They develop rapidly in the first 5 years of life (Zelazo, Qu, Müller, 2005). Training programs aiming to improve EF have been developed (Diamond et al., 2007; Kirkham, Cruess, & Diamond, 2004), however, results are controversial (Müller et al., 2008). The current study investigated whether additional tuition (out of school curriculum) could facilitate the EF development of 49 5- and 6-year-old Singaporean children. Such tuition programs usually include 1 to 2 sessions per week and 1.5 to 2 hours per session. Seven tasks were conducted: 2 working memory tasks, the Digit Span (Davis & Pratt, 1995; Gathercole, 1999; Weschler, 1974) and the Block Span (Corsi, 1972; Pickering, Gathercole & Peaker, 1998); 2 inhibitory tasks, the Day/Night Stroop (Gerstadt, Hong & Diamond 1994) and the Bear/Dragon (Reed, Pien & Rothbart, 1984); and 2 flexibility tasks, the Alternate Uses Test (Getzels & Jackson, 1962) and the Flexible Item Selection Task (FIST-4-item; Jacques & Zelazo, 2001); and the Peabody Picture Vocabulary Test-IV (PPVT; Dunn & Dunn, 2006). Preliminary results showed significant interaction effect between the children's age and their tuition experience (more tuition Vs little tuition) on the FIST ($F(1,45)=4.23, p=.046$) and the Day/Night Stroop ($F(1,45)=9.02, p=.00$). Six-year-olds with more tuition appeared to be significantly more flexible ($M=.661, SD=.277$) than those with little tuition ($M=.267, SD=.310$). However, tuition experience did not result in significant difference in 5-year-old's FIST performance. Similarly, 6-year-olds with more tuition ($M=14.17, SD=1.07$) appeared to have significantly better inhibitory responses than those with little tuition ($M=11.07, SD=.95$). However, this trend reversed for 5-year-olds. Five-year-olds with little tuition have better inhibitory responses ($M=13.50, SD=1.07$) than those with more tuition ($M=10.20, SD=1.17$) instead. In addition, significant difference in the PPVT ($F(1,47)=9.26, p=.004$) indicated that children with more tuition have better receptive vocabularies. These results suggest that additional tuition programs may improve their main EF components but this improvement is dependent on their age.

Face to face(book): The role of attachment in social networking

ZOPPOS, E. (Monash University)

eloise.zoppos@arts.monash.edu.au

Since its launch in 2004, *Facebook* has emerged as one of the most popular social networking services with over 66 million active members (facebook.com, 2008). To date, the burgeoning social networking literature has concentrated on service membership, social impact and explanations for the continuing attraction of 2-D virtual communities. No research, however, has been conducted examining the role of attachment style in members' attraction to and use of social networking services. In this paper, engagement with, and use of, *Facebook* is examined in light of members' adult attachment styles as measured via the *Experiences in Close Relationships – Revised* questionnaire (Fraley, Waller and Brennan, 2000), a self-report measure of attachment style, attachment-related anxiety, and attachment-related avoidance in adult relationships. The relationship between 'offline' attachment style and engagement in online social networking was explored via a semi-structured Web-based survey. The findings of this study demonstrate an apparent relationship between an individual's attachment style and their use of Facebook, specifically, that high attachment-related avoidance is associated with heavy Facebook use. These results will be discussed along with the reflection of 'offline' attachment style in online Facebook relationships, and our understanding of 'virtual attachment'.