Abstracts of Students’ Theses

Tena koutou katoa,
In this issue we continue a recent innovation to present recent abstracts from Masters and PhD research theses completed in 2011 and 2012. In previous issues of Psychology Aotearoa, we provided abstracts of research completed in industrial/organisational psychology (May 2011) and community psychology (November 2011). For the present issue, we focus on research in clinical psychology. Here we list abstracts from the University of Canterbury, University of Otago and University of Waikato. The aim is to provide information on the range of research which is being conducted at universities in Aotearoa New Zealand, in a form which is valuable for both practitioners and researchers.

Unfortunately, we are not able to include abstracts from The University of Auckland or Massey University in this issue, but we hope to be able to do so on another occasion. If you would like further information on any specific abstract, we suggest that you make direct contact with the chief supervisor of that thesis. If you have any general comments on this section, we would appreciate hearing from you.

Ngā mihi nui,
Michael O’Driscoll, Editor

University of Otago

Alder, Roni  (MSc, 2012)
Title: The acute impact of news of risk for schizophrenia: Ethical implications of psychometric screening
Supervisor: Richard Linscott
Background: In the psychometric high-risk paradigm, contrary to the principle of informed consent, participants are not usually informed of their risk status. One argument for this nondisclosure is that risk information may engender significant distress.
Objective: The aims were to investigate this argument and to examine the reactions of non-help seeking individuals to disclosure of personally relevant information about risk for schizophrenia. It was expected that the impact of news of risk for schizophrenia would be similar to that associated with cancer and greater than that associated with depression and a neutral control condition. It was also expected that stigma consciousness and health locus of control would predict distress arising from the news.
Method: Participants (N = 160) underwent screening in a deception paradigm (thioamine acetylase enzyme deficiency) during which the participants were led to believe they had an enzyme deficiency that was benign (neutral control) or associated with elevated risk for schizophrenia, cancer, or depression. Participants provided subjective mood ratings, salivary cortisol pre- and post manipulation, and rated beliefs about stigmatisation and health locus of control.
Results: Low levels of subjective and objective distress were observed. There was no evidence that the impact of news differed across groups or that health locus of control predicted distress. Greater expectations of being stigmatised predicted greater deterioration in self-reported mood. Conclusions: The study helps to progress the research available on schizotypy screening and contributes to the debate surrounding this area. Given the findings, it is possible that the concern participants could experience distress upon receiving news of risk may not be well-founded.

Bekker, Marthinus  (MSc, 2011)
Title: Improving asthma self-management in tertiary students
Supervisor: Louis Leland
New Zealand is rated seventh highest in the world for the prevalence of asthma, with an estimated 15.1% of the population suffering from this disorder. Poor management of the condition contributes to the severity of the problem despite the availability of adequate treatments. Patient compliance with asthma medication regimes is poor, and the tertiary student population is a particularly noncompliant group with self-reported adherence as low as 44%. The current study had three main aims. The first was to test a method of increasing asthma medication adherence, the second was to improve participants’ technique when using their inhalers, and the third was to make participants aware of the positive outcomes associated with reaching the first two aims and provide them with general education. The intervention used proximal pairing, education, and feedback. Proximal pairing was used as a memory aid, with participants’ inhalers put in a holder along with their toothbrush and toothpaste. Education focused on inhaler technique, and asthma’s triggers and treatment. Feedback on participants’ asthma symptoms, peak flow readings, and technique, was provided at regular intervals. These interventions had a significant positive effect on both adherence and technique, both overall, and for many of the individuals, as well as significantly improving their overall opinion that taking their preventative inhaler reduced asthma symptoms. The results show that days on which preventative inhalers were used at least once increased by 21% after intervention among participants who had poor adherence before intervention. Inhaler technique also improved significantly from 74% accuracy before the intervention to 93% after. Furthermore, the number of people who believed that taking their inhaler was important also increased significantly. These
changes were accompanied by an overall significant increase in peak flow, although few individuals achieved a meaningful increase and there was no change in reliever usage. The changes were achieved while maintaining good social validity and at a cost of only about NZ$20 per person per year. These results show promise in not only improving asthma medication management with a simple and affordable intervention, but also for improving adherence of other chronic medicated conditions.

**Harding, Jasmine (MSc, 2012)**  
**Title:** The impact of children's ADHD symptom severity and maternal characteristics on mothers' psychosocial functioning  
**Supervisor:** Dione Healey

A growing body of research has shown that childhood Attention Deficit Hyperactivity Disorder (ADHD) is linked with psychosocial difficulties in parents, specifically in mothers who tend to be heavily involved in the day-to-day caregiving of their child. The present study aimed firstly to replicate the finding that maternal psychosocial difficulties are greater in mothers of children with ADHD than in mothers of typically developing children. Secondly, the study aimed to examine the relation amongst maternal characteristics, maternal psychosocial functioning, and child ADHD symptom severity in order to identify factors associated with increased vulnerability to psychosocial difficulties. Thirdly, we investigated the moderating effect of maternal personality, parenting practice, and coping on the relationship between child ADHD symptom severity and maternal psychosocial functioning. Together, the results suggest that mothers of children with ADHD are adversely affected in terms of their psychological health. Findings are discussed in terms of how they may supplement current psychological interventions.

**Hegan, Matt (MSc, 2011)**  
**Title:** Gambling behaviour in pigeons: Toward an animal model of gambling  
**Supervisor:** Mike Colombo

The gambling addiction is a destructive impulse control disorder that leaves families destitute and lives in ruins. The treatment and pathology of gambling have become a popular area of research, reflected in national media campaigns here in New Zealand. Studies suggest that there are prefrontal activation differences in problem gamblers compared to healthy volunteers, areas involved with decision making and reward. Animal research has begun to investigate an animal model of gambling, with some studies showing behavioural similarities between animals and humans when playing gambling tasks. The current thesis sought to further investigate an animal model of gambling, performing two experiments using a slot machine task. Experiment 1 was an investigation into the neural basis of gambling, examining the behaviour of single neurons in the avian NCL, an equivalent to the mammalian prefrontal cortex. Four pigeons (Columba livia) served as subjects and played a touch screen slot machine task, similar to a slot machine found in any casino. Pigeons were required to peck an upright arm to initiate each trial, and then peck four rolling tumblers in succession from left to right. If four identical stimuli appeared, then a wheat reward was won. During the task, activity from single NCL neurons was recorded. Four neuronal types were found to correlate with gambling related behaviour: Reward Proximity neurons, I-Won neurons, I-Lost neurons and Near Win neurons. In addition pigeons were split into two groups with one group trained for a short (one month) and long (four month) period, in an attempt to mimic naive and problem gamblers. It was hypothesised that due to prolonged training the two groups would differ in the amount and magnitude of firing of these neurons. Results showed no statistical difference between groups in either amount of gambling neurons or magnitude of firing. Behavioural data were also collected and it was hypothesised that all birds would show evidence of a post reinforcement pause, something our results confirmed. Experiment 2 investigated whether pigeons, similar to humans, show a preference to play slot machines with higher near win ratios. Four pigeons were again tested on a touch screen slot machine task, required to play on two different ‘machines’ differentiated by different coloured backgrounds. It was hypothesised that when pigeons were given a choice, they would choose the machine that had the higher percentage of near win trials. Our results did not show evidence of any preference, and it was concluded that the near win effect may not be replicable in animals. In conclusion, the current thesis demonstrates that neurons in the avian NCL code for gambling behaviours while pigeons play a slot machine task. Although an analogue of slot machine gambling may be found in animals, our findings suggest gambling characteristics such as the near win effect may not be replicable. The current findings provide a base for further research to investigate an animal model of gambling.

**Lim, Bee Teng (PhD, 2011)**  
**Title:** The ubiquitous decline or paradox of aging: Young and older adults’ differences in emotion reactivity, recognition, and regulation  
**Supervisor:** Ted Ruffman

The aging literature indicates that physical, cognitive and affective functions follow different trajectories across the lifespan. Physical and cognitive capabilities are shown to decline with advancing age, whereas affective functioning is suggested to remain stable or may even be enhanced in older adults. The main aim of the present thesis is to examine age differences in emotion reactivity, recognition and regulation. The inter-relationships among emotion reactivity, recognition and regulation were also assessed to provide a more complete picture of potentially different age trajectories of emotion processes. In addition, the effects of potential moderators, namely emotion intelligence and loneliness, on age differences in emotion reactivity were examined. In Study 1, a standardised set of film stimuli
was developed and validated. Forty-eight participants (24 young and 24 older adults) participated in the stimulus validation study. The chosen film stimuli were shown to be effective in eliciting target emotions in a laboratory setting. No significant age and sex differences were observed, and prior viewing of the film was shown to have no significant impact on participants’ self-reported emotion experience.

In Study II, young-old differences in emotion reactivity, recognition and regulation as well as the inter-relationships among these affective functions were of interest. In addition, age-related decline in heart rates and skin conductance levels in response to affective film stimuli were observed. Older adults were significantly worse at recognising facial expressions of sadness and anger, and marginally worse at recognising facial expressions of fear. Older adults reported more habitual use of expressive suppression than their younger counterparts, while no age difference was found for cognitive reappraisal use. Emotion intelligence did not buffer against age-related decline in emotion reactivity.

Finally, in Study III, I aimed to replicate the findings of Study II, as well as extend Study II by including facial electromyography as another index of emotion reactivity. I also employed emotion recognition tasks that are more complex and tap into other sensory modalities. Again, age-related decline in heart rates and skin conductance was observed. Young adults displayed significantly greater corrugator activity in response to fear-provoking film clips, but no significant age difference was found for corrugator activity in response to the anger and sadness-provoking film clips. Young and older adults also displayed comparable level of zygomatic facial activity when presented with the amusing film clip. Older adults were worse at recognising angry and fearful facial affect. As for the face-voice stimulus, young adults were worse at recognising facial expressions of fear. As for the face-voice stimulus, older adults were worse at recognising facial expressions of fear and sadness-provoking film clips. Young adults were significantly more frequent rewards for correct responses to one stimulus than the other stimulus. Study 1 found that boys with ADHD-C developed bias towards more frequently rewarded stimuli more slowly than normally developing boys - this was particularly apparent towards the end of the task. The results were also consistent with previous literature identifying that children with ADHD show reduced bias towards frequent rewards following individual rewards to the infrequently rewarded stimulus. Study 2 examined sensitivity to reward frequency, and generated response bias by arranging more frequent rewards for correct responses to one stimulus than the other stimulus. Study 1 found that boys with ADHD-C developed bias towards more frequently rewarded stimuli more slowly than normally developing boys - this was particularly apparent towards the end of the task. The results were also consistent with previous literature identifying that children with ADHD show reduced bias towards frequent rewards following individual rewards to the infrequently rewarded stimulus. Study 2 examined sensitivity to reward frequency, and generated response bias by arranging more frequent rewards for correct responses to one stimulus and delayed rewards for correct identifications of the other stimulus. In Study 2 there were no clear differences between groups. The interpretation of both experiments was confounded by confounding variables: task version (in Study 1); and task order (in Study 2). An unintended but interesting finding is that children with ADHD-C may be more influenced by their past history of reward than control children. Children with ADHD-C who completed Study 2 after Study 1 tended to continue to show bias towards the response that had been rewarded frequently in the previous task, despite the same response being associated with delayed rewards in the current task. Children with ADHD-C may be less able than normally developing children to reverse their preference in response to altered reward contingencies. The results of the current experiments are discussed in relation to the broader literature on ADHD and rewards/reinforcement and current theories of ADHD.

McLennan, Kathryn (MSc, 2012)
Title: Evaluation of the New Zealand Word Identification Fluency Task as an Indicator of Reading Proficiency in Year 2
Supervisor: Libby Schaughency
Many reading difficulties may be prevented if detected and effectively addressed early (Greenwood & Carta, 2011). In New Zealand, recent policy documents specify instructional targets after one year of school (Ministry of Education, 2009). Therefore, assessment tools are required for this developmental period that are effective and efficient.

Some aspects of beginning reading, such as learning the alphabet, may be constrained, no longer growing once they are achieved due to ceiling effects (Paris, 2005). However, because reading skills are still developing, oral passage reading tasks may not be sensitive to individual differences and change in performance until approximately the middle of Year 2 due to poor effects. A measure is required that adequately indexes children’s developing reading proficiency during this intermediate period. Research suggests that context-free word recognition speed contributes to syntactic processing in reading (Klauda & Guthrie, 2008) and differs between skilled and unskilled readers (Jenkins, Fuchs, Van Den Broek, Espin & Deno, 2003). Fuchs, Fuchs and Compton (2004) found Word Identification Fluency (WIF) to be a good indicator of overall reading proficiency.
among Year 2 aged children in the US. Due to linguistic (Robb, Maclagan, & Chen, 2004; Robb & Gillon, 2007) and curricular (Smith & Elley, 1997) differences between NZ and America, small-scale field trials are recommended before introducing measures to the New Zealand educational context (Croft, Stafford & Mapa, 2000). This thesis aimed to create and evaluate a New Zealand adaptation of the WIF task (NZWIF). Following the approach taken by Fuchs et al. (2004), we developed New Zealand Word Identification Fluency (NZWIF) for the New Zealand (NZ) educational context, informed by research on the development of word usage by children in NZ and consideration of words NZ children encounter in beginning reading texts.

Pharo, Henry (PhD, 2012)
Title: The behavioural and psychological effects of ostracism in adolescence and emerging-adulthood
Supervisor: Harlene Hayne
The developmental periods of adolescence (13- to 18-year-old and emerging-adulthood (18- to 25-years) are important stages for an individual's emotional and psychological development. For most, adolescence and emerging-adulthood are times of excitement, a time in which they mature and develop a deeper sense of personal identity. However, there is also a subset of the general population who can develop psychological problems such as substance abuse disorders, delinquency, depression, and suicide during this time. While the aetiology of these problems is not entirely clear, a number of researchers have shown that one of the biggest external predictors of problem-behavior during adolescence and emerging-adulthood is peer influence. Ostracism - the act of being excluded or ignored by others is one aspect of peer influence that warrants considerable scientific attention. A large body of research has shown that ostracism is associated with a decrease in an individual's psychological well-being, including their self-esteem. Furthermore, work conducted both within our own laboratory and in others has suggested that adolescents and emerging adults may be at an increased risk of experiencing negative effects following ostracism.

The overall aim of this thesis was to investigate the psychological and behavioural impacts of ostracism in adolescent and emerging-adult samples. In Experiment 1, we recruited samples of adolescents, emerging-olds, and young-olds, and examined whether ostracism would influence participants propensity to assert control over a group situation by nominating themselves as a leader. For Experiment 2 and Experiment 3, we chose to focus our investigations on the emerging-adult population. In Experiment 2 we examined the relation between ostracism and risk-taking behaviour. In Experiment 3 we examined the relation between ostracism and aggressive behaviour, and the effect of being ostracised by a group of close friends compared to a group of strangers. Overall we found a number of interesting findings. First, consistent with the ostracism literature, in all three of our experiments we found that ostracism had a strong negative effect on participants' psychological well-being. Second, we found a number of specific effects of ostracism on participants' behaviour. In Experiment 1 we found that individuals who reported the greatest negative effect of ostracism on their self-esteem were more likely to nominate themselves for a leadership role; this may be one way in which individuals who are worst affected by ostracism attempt to buffer and re-build their diminished self-esteem. In Experiment 2 we found that ostracised participants were significantly less likely to take risks on a computer based risk-taking task compared to included participants, therefore suggesting a link between ostracism and introverted behaviour. Finally, in Experiment 3 we found two findings: first, despite prior research suggesting a link between ostracism and increased aggressive behaviour, we found no effect of ostracism on aggression in our sample. Second, counter to the current theoretical models of ostracism, the magnitude of the negative effect of ostracism did not differ as a function of the source of ostracism. That is, individuals who were ostracised by complete strangers or by close friends both reported equal levels of psychological hurt. Overall this thesis provides new insight into the psychological and behavioural symptoms associated with the experience of ostracism.

Reid, Katie (MSc, 2011)
Title: The pursuit of happiness
Supervisor: Tamlin Conner
Is the frequent monitoring of happiness in daily life actually detrimental to happiness?
Current psychological literature suggests that explicit focus on happiness may actually be self-defeating (Schooler, Ariely, & Lowenstein, 2003). The current thesis investigated the psychological effects of frequent self-monitoring of happiness outside the laboratory in daily life. A total of 223 young adults (92 men) from the University of Otago were randomly assigned to one of four experimental groups. Commercially available SMS text message software was used to send participants either one, three or six text messages per day for 13 days inquiring about their current level of happiness. A fourth control group also received six text messages per day inquiring about non-mood related experiences. Findings showed no differences in changes in momentary or trait happiness between the three experimental groups, suggesting no reactivity as a result of monitoring happiness overall. Conversely, group differences in changes in momentary happiness were moderated by personality variables self-esteem and dysphoria. Findings suggested that increased monitoring of happiness among those with low self-esteem and high dysphoria leads to a decrease in happiness over time. Interestingly, there was also some evidence that frequent reporting of non-emotional states led to a decrease in trait happiness among those low in self-esteem. Taken together, these findings suggest that the heightened focus on happiness throughout western society today may actually be detrimental to the happiness of those with greater vulnerability to lower mood - i.e. those with low self-esteem or high dysphoria.

Robinson, Thomas (PhD, 2011)
Title: Neuropsychological function and ADHD
Supervisor: Gail Tripp
The present study compared the intellectual, academic, and neuropsychological performance of 55 children diagnosed with attention deficit hyperactivity disorder (ADHD) with that of an age and gender matched control 4 years after initial diagnosis. The performance of the ADHD group at initial-assessment and at four years follow-up was also compared at both the group and individual levels of analysis. Cross-sectional comparisons indicated the ADHD sample performed less well than controls on measures of intellectual function, academic achievement, and on some
neuropsychological measures. Subgroup analyses suggested participants whose symptoms had remitted were less impaired relative to controls. Longitudinal group comparisons found little evidence of change over the course of the study. However, higher than expected proportions of reliable change at an individual level were observed for intellectual function and especially for academic achievement.

**Stedman, Kyrustyn (MSc, 2011)**
**Title: Obesity and intellectual disability in New Zealand**
Supervisors: Louis Leland and Gareth Treherne

International literature indicates that the rates of obesity are increasing in OECD countries and that there are significant health risks to individuals who are classified as obese. Research has also highlighted that obesity is likely to be more pronounced in people who have an intellectual disability (ID). Despite this association there has been little research into the reasons why this population is overrepresented in obesity statistics. Furthermore, except for the brief report derived from this thesis (Stedman & Leland, 2010), there are no published New Zealand data on the rates of obesity among people who have an intellectual disability. In the present study I accessed a database containing anonymous data for a sample of New Zealanders who have an intellectual disability. Ninety-eight participants out of 141 in the database had complete and up to date data. The group with complete data did not significantly differ from the group with incomplete data in gender or hours of staff support. Participants’ body mass index (BMI) was used to estimate rates of obesity within the sample. Comparisons were made with the general rates of obesity in adults reported by the New Zealand Ministry of Health (2008) using each of the BMI categories; underweight (< 18.50), normal (18.50 - 24.99), overweight (25.00 - 29.99) and obese (≥30.00). Obesity was further broken down into classes one (30.00 - 34.99), two (35.00 - 39.99) and three (≥40.00).

There were significantly higher rates of people with a BMI ≥30.00, in the group who had an intellectual disability (50.98%; general population 26.50%). There were significantly more adults who had an intellectual disability in all three BMI classes, with the most significant difference in class three. While there were more obese men and women who have an intellectual disability in this sample than would be expected, women were found in higher than expected rates in class two (BMI 35.00 - 39.99) and class three (BMI ≥ 40.00). Research into the causal factors and potential interventions specific to men and women in this population to promote and maintain weight loss are warranted.

**Stevenson, Matthew (MSc, 2011)**
**Title: Do Phenylketonuria and Attention Deficit/Hyperactivity Disorder Share a Common Dysfunction? A “Behavioural Inhibition System” Hypothesis**
Supervisor: Neil McNaughton

Phenylketonuria (PKU) is a well defined metabolic disorder arising from a point mutation on a single gene. This mutation disrupts the metabolism of phenylalanine, which indirectly reduces the synthesis of dopamine. Severe cognitive impairment can be prevented by dietary treatment; however, residual symptoms may be reported. These symptoms appear closely related to a more prevalent childhood disorder: Attention Deficit/Hyperactivity Disorder (ADHD). The aetiology of ADHD is a vast contrast to PKU: it seems to arise from a complex combination of genes; and it has a substantial environmental component. These two disorders provide an opportunity to compare two vastly different genotypes that seem to converge on a specific phenotype. This thesis provides a comprehensive review of the literature on PKU, including aetiology, treatment, neural pathology, cognitive deficits and electrophysiological abnormalities. Where available, studies from the ADHD literature were matched for comparison. This comparative review found distinct neural pathologies that nonetheless bad points of similarity that could underlie similar superficial symptom clusters. Overlapping symptoms between PKU and ADHD included deficits in visual function, motor function, attention, working memory, planning and inhibition. It has been suggested for both disorders that many of these cognitive deficits may arise from a primary deficit of behavioural inhibition. The primary behavioural inhibition deficit in ADHD (excluding the inattentive-subtype) has been explicitly linked to the Behavioural Inhibition System proposed by Gray & McNaughton (2000). The current thesis proposes that PKU and ADHD share this dysfunction of the Behavioural Inhibition System, which leads to superficial symptoms being common to both disorders. One role of the Behavioural Inhibition System is to resolve conflict between two competing goals. Therefore, an ideal task to test this hypothesis should: 1. Be a pure measure of behavioural inhibition, unconfounded by other abilities that may be deficient in PKU and ADI-ID; 2. Produce conflict-specific activation of the Behavioural Inhibition System.

The Stop Signal Task is one of the simplest tests of behavioural inhibition and has been recently used to produce conflict-specific theta rhythm activation in healthy adults. This provides a marker of activation of the Behavioural Inhibition System. The thesis ends with the first demonstration that the Stop Signal Task can be used to produce conflict-specific theta activation in healthy children. The hypothesis that PKU and ADHD share a common dysfunction of the Behavioural Inhibition System can therefore be directly tested.

**Vettise, Dominic (MSc, 2012)**
**Title: Visual elements of schizotypy experiences: An investigation of representational momentum and eye-tracking risk markers**
Supervisor: Richard Linscott

Eye tracking dysfunction including smooth pursuit and voluntary eye movement are the most robust biological markers for risk of schizophrenia. Researchers suggested that eye tracking impairment may also involve higher-order functions such as errors in the prediction of an object’s position, yet the relationship is unclear. Therefore, prediction of an object’s position was tested through a unique phenomenon observed in schizophrenia and those at risk coined the representational momentum (RM) effect. The aim of the current study was to determine whether the prediction of an object’s position is involved in eye movement anomalies and to what extent eye tracking and prediction is differently related to aspects of schizotypy. It was hypothesised that a) the eye tracking indices would be differently related to schizotypy subtypes, and b) the RM effect would significantly contribute to a model predicting risk for schizophrenia. One hundred and seventy-one participants were assessed on evidence-based eye tracking.
Wolff, Amy (PhD (Neur), 2011)
Title: Brain and behaviour in an animal model of schizophrenia
Supervisor: David Bilkey
Schizophrenia is a chronic neurological disorder that causes significant impairment for ~1% of the population. Epidemiological studies have suggested that there is a link between prenatal exposure to infection and the development of schizophrenia in the progeny. In particular, maternal immune activation (MIA) in response to infection is thought to alter neurodevelopment so as to increase the risk of schizophrenia. The MIA animal model provides a useful platform to examine this link, as it separates the effects of infectious factors from immune activation. Here, the effects of MIA in the rat are characterized, with a particular focus on memory function and contextual processing, as these have been proposed to be core features of the cognitive symptoms of the disease. The contributions of the hippocampus to cognitive impairment in schizophrenia are also explored. MIA was induced in pregnant rat dams on gestational day 15 with a single injection of the synthetic cytokine inducer poly I:C. Open-field exploration and pre-pulse inhibition (PPI) were assessed in juvenile (35 day) and adult (> 3 month) offspring. Discrimination and reversal learning, memory function and contextual processing were assessed in adult animals. A separate group of adult animals were implanted with electrodes in the dorsal hippocampus for an in vivo examination of hippocampal place cell activity. MIA offspring were shown to display impaired PPI during testing conducted in adolescence and in adulthood. The MIA animals were also found to display abnormally rapid reversal learning of a position discrimination. MIA also resulted in memory impairment, with MIA animals displaying significantly reduced preferences for the novel object during recognition testing, and an increased memory for the reversed platform position in the Morris water maze task. MIA offspring also displayed evidence of impaired contextual processing, showing a reduced and less persistent reinstatement of rearing after a change in environmental context. The in vivo examination of hippocampal place cell activity indicated that cells in MIA offspring display a more spatially selective representation of ‘place’ than control cells. MIA animals were also less likely to shut down or turn on their spatial firing in one of the environmental contexts, indicative of reduced context specificity. Here it is demonstrated that MIA in the rat produces behaviours that are similar to the positive and cognitive symptoms seen in patients with schizophrenia. We have demonstrated for the first time that MIA results in a similar disruption of sensorimotor-gating and non-spatial memory in the adult rat, as has previously been reported for mice. Interestingly, we found that PPI impairments in the rat do not display the same post-pubertal pattern of emergence that is seen after MIA in the mouse. We have also shown for the first time that MIA is associated with impaired contextual processing, a disruption that is thought to be a core underlying deficit in schizophrenia. The examination of hippocampal place cell activity also suggested a reduced sensitivity to contextual information in the MIA animals. These results suggest reduced context-specificity of hippocampal representations may be a factor underlying contextual processing impairments in schizophrenia.

Zdrenka, Helene (MA, 2011)
Title: Predictors of impairment in school-aged children with a diagnosis of ADHD
Supervisor: Dione Healey and Gail Tripp
Background: Many children exhibit hyperactive/inattentive behaviours, but only some experience significant impairment. However, little is known about the reasons some symptomatic children are more impaired than others. This study examined whether child, parental, or teacher factors predicted level of functioning in school-aged children diagnosed with ADHD, above and beyond child ADHD symptom severity.
Method: A sample of children aged 5 to 11 years who were all diagnosed with ADHD (n = 88), participated in this study. Child measures included FSIQ scores, parent and teacher reported ADHD symptom severity and temperament attributes, and clinician-rated Children’s Global Assessment Scale (CGAS) ratings which were used to determine level of child functioning. Parent- and teacher-rated child expectations and actual child behaviour, parenting/teaching stress, and parent reports of parenting style were obtained. Results: Analyses showed that after controlling for child ADHD symptom severity, lower maternal parenting-efficacy beliefs was significantly associated with higher maternal stress and maternal parenting styles. Higher child ADHD symptom severity and a lax maternal parenting style were significantly related to higher child impairment above and beyond maternal parenting beliefs. After controlling for child temperament attributes, paternal stress was approaching significance to an over-reactive paternal parenting style, which was in turn approaching significance to child functioning, above and beyond child temperament attributes. After controlling for child ADHD symptom severity, higher teacher responsibility for student failure, lower teacher credit for student success, and lower Goodness of Fit (GoF) between teacher expectations and student behaviour in regard to general activity level and adaptability to changes, were significantly associated with higher teaching stress, above and beyond child ADHD symptom severity. Parent stress, and lower Goodness of Fit (GoF) between teacher expectations and student behaviour in regard to general activity level and adaptability to changes, were significantly associated with higher teaching stress, above and beyond child ADHD symptom severity. Parent attitude for student success and lower teacher expectations GoF in regard to adaptability were approaching significance in relation to higher child impairment, above and beyond child ADHD symptom severity. Teacher attributions for student failure, and teacher expectations GoF in regard to general activity level. Conclusions: Child, parent and teacher factors were related to level of impairment in school-aged children with ADHD, with strongest effects found for maternal factors. The results suggest that ADHD interventions for school-aged
children which help mothers to develop greater parenting-efficacy beliefs may help reduce parenting stress and maladaptive parenting. Furthermore, teaching mothers strategies to better manage parenting stress, along with firm and consistent parenting behaviours, may improve the functioning of school-aged children with ADHD. Fathers of children with ADHD may benefit particularly from gaining parenting stress management skills in order to better control expressed irritability towards their child while maintaining a clear communication style with them. Involving teachers in ADHD interventions by encouraging development of more balanced teaching beliefs about student success, as well as strategies to better manage teaching stress and student behaviour which deviates from teacher expectations (particularly in regard to activity level and adaptability), may also increase the functioning of school-aged children with ADHD.

Victoria University

Burrows, Michael (MSc 2011)
Title: The influence of spatial position on affect
Chief supervisor: Tony Ward
Conceptual metaphor theory posits that the physical domain (e.g. the vertical dimension) is used to understand abstract concepts (e.g. affect); creating expressions such as, “falling into a deep depression.” Previous research concerning vertical metaphors has found that people more rapidly process positive and negative words when the valence was metaphorically consistent with vertical position (Meier & Robinson, 2004) and that mood traits were metaphorically consistent with vertical attentional biases (Meier & Robinson, 2006). The purpose of the current study was to investigate the effects of vertical perceptual biases on mood; whether shifting perception could have an effect upon the emotional experience of an individual. In Experiment 1, vertical attention was manipulated by having university students move letters upwards or downwards on a computer screen, with measures of mood completed before and after the manipulation. In Experiment 2, participants completed the same task, but moved schematic faces that were either happy or sad. In both experiments vertical attention was biased; however a significant change in mood state was produced only when schematic faces were used as stimuli in the task. The results suggest that shifting an individual’s vertical perception can influence their mood, when the task is emotionally arousing.

Dalrymple-Alford, Stefan (MSc, 2011)
Title: “The Cuscus has White Teeth.” The Verbal Information Pathway to Fear in Non-clinically Anxious Children: No Influence of Ambiguous Information or Trait Anxiety
Chief supervisor: Karen Salmon
Twenty-nine non-clinically anxious children, aged 7-10 years old, completed the Fear Beliefs Questionnaire (FBQ; Field & Lawson, 2003) before and after the presentation of verbal ambiguous information about an unknown animal, while 32 similar children matched for trait anxiety did the same after hearing threat information. Behavioural avoidance of the animals was subsequently examined with an adaptation of the Nature Reserve Task (NRT; Field & Storksen-Coulson, 2007). Children also completed a Reduced Evidence of Danger interpretation bias task (Muris, Merckelbach & Damsma, 2000c) for ambiguous stories with generalised anxiety and social anxiety content, prior to the FBQ and NRT. Verbal threat information substantially increased FBQ ratings and NRT distance from the tagged animal, whereas ambiguous information had no effect on these measures other than a subset of children showing an avoidance of the tagged animal in the NRT. Contrary to expectations, level of trait anxiety was not related to interpretation biases, or the effect of ambiguous or threat information. In the threat group, but not the ambiguous group, two bias measures for generalised anxiety stories were associated with relative increase in FBQ ratings for the tagged animal, and a third bias measure for social anxiety stories was associated with NRT score. The associations held when controlling for gender, age, and trait anxiety, including trait anxiety used as a moderator variable. These findings support the view that verbal threat information is sufficient to induce fear of animals in children. Results are inconsistent with the current view that the effects of the verbal information pathway increase as a function of trait anxiety and that ambiguous verbal information can lead to increased fear responding. The evidence for bias – verbal threat associations suggests that future studies should examine their role in the verbal information pathway to fear and anxiety, and clarify the influence of various internalising and externalising psychopathologies beyond trait anxiety.

Hardley, Jessica (MSc 2012)
Title: An Integrated Framework for Professional Ethical Thinking in Child Clinical Psychology
Chief supervisor: Tony Ward
Practitioners face a number of unique challenges in child clinical psychology, particularly around areas such as competency, consent, confidentiality, and the balance of obligations towards the child or young person and their legal guardians. Resorting to ethical codes of practice to try and deal with these ethical dilemmas often fails to resolve the problem adequately, or leads to ‘moral blindness’ in which other ethical issues are ignored (Ward & Syversen, 2009). In order to provide a more complete ethical guideline for practitioners to consult when faced with ethical quandaries, I have created the Integrated Framework for Professional Ethical Thinking (IFPET) that is specifically tailored towards child and adolescent clinical psychology. The IFPET model provides a multi-faceted approach to ethical thinking that widens moral reasoning and awareness and promotes a more complete approach towards dealing with ethical issues in child and adolescent clinical psychology.

Hewson, Gary (MSc 2011)
Title: Evaluation and recall of valenced stimuli as a function of spatial position
Chief supervisor: Tony Ward
Meier and Robinson (2004) had subjects identify pleasant and unpleasant words presented individually either at the top or bottom of a computer screen. Subjects identified pleasant words faster when they appeared at the top of the screen and unpleasant words faster when they appeared at the bottom of the screen. The authors discussed this finding in terms of metaphors noting that in language good things are often allocated upwards (e.g. “things are looking up for me”) and bad things downwards (e.g. “I’m down in the dumps”). The aim of the present study was to investigate whether
the response task without a straw (control facilitate smiling. A third group performed conditions. One group held a straw between their teeth to identify the colour as quickly as possible. No significant interaction between stimulus valence and spatial position was found, nor did recall interact with spatial position. In Experiment 3 subjects had to explicitly identify the valence of the words shown either at the top or bottom of the screen. It was predicted that positive stimuli would be explicitly evaluated faster and recalled more accurately when shown at the top of the screen, with the opposite holding true for negative stimuli. Participants were quicker to identify positive words at the top of the screen. Recall did not interact with spatial position. Overall the results of this study were broadly supportive of the hypothesis for explicit evaluation but not so for implicit evaluation or recall.

Mosenrose, Sara (MSc, 2011)
Title: Faces and orientational metaphors: The effects of valenced faces and facial manipulations on neutral targets
Chief supervisor: Tony Ward

Previous research has shown that there may be an association between affect (negative vs. positive) and vertical position (up vs. down) of stimuli. The following research aimed to investigate whether individuals show spatial biases, either up or down, when asked to respond to neutral targets after seeing valenced faces. The research also aimed to investigate what impact manipulating automatic facial mimicry responses would have on response times. The research was conducted over three experiments. In Experiment 1, participants responded to neutral targets in either high or low vertical positions on a computer screen that were preceded by happy and sad schematic faces. There were two facial manipulation conditions. One group held a straw between their lips to inhibit smiling and another group held a straw between their teeth to facilitate smiling. A third group performed the response task without a straw (control condition). The procedure of Experiment 2 was identical to Experiment 1 except the happy and sad schematic faces had additional internal facial features (noses, eyebrows) that varied across trials. For both Experiment 1 and 2, targets preceded by a happy face were responded to significantly faster. In Experiment 3, the procedure was identical to Experiments 1 and 2, except photographic images of happy, neutral, and sad expressions were used. Participants were significantly faster to respond to targets in the high vertical position. Participants were also faster to respond to targets in the control (no straw) condition than the other two straw conditions. In the inhibition smiling condition, participants were faster to respond to targets in the high vertical position than low vertical position after seeing a happy or neutral face. These findings indicate that there may be an association between valenced faces and vertical selective attention that is consistent with orientational metaphors (positive = up), but further research is needed to clarify this.

University of Waikato

Pevreal, Jenny (PhD, 2012)
Title: The Science Of Meditation: From Mysticism To Mainstream Western Psychology
Chief Supervisor: Dr Jo Thakker, Supervisor: Dr Judith MacDonald

Psychological applications of meditative practice have become the ‘third wave’ tools in the psychology clinician’s therapeutic tool kit. Meditation techniques for numerous psychological disorders, as well as the psychological impacts of chronic medical conditions, are being used by a growing number of mainstream clinicians in Western healthcare contexts, which were previously the domain of alternative practitioners, and formerly the sometimes secretive and mysterious domain of the orthodox and esoteric spiritual traditions. Many questions arise regarding how this conversion has taken place and why. This thesis explores some of the issues surrounding the adoption, reduction, and application of meditation practices from its Eastern and Western origins and transmission to mainstream Western healthcare contexts. By tracing the history of the rise in popularity of meditation in the mainstream Western health sciences, particularly within the mental health sector over the past century or so, it is intended to contribute to an answer to, in part, the question of ‘why’ and, in pruit, the question of ‘how’.

A further question of whether sufficient cognizance has been taken of the subjective experiences and understandings of long-term meditation practitioners and what they can contribute to Western psychological understanding of meditation – its application potentials and pitfalls - is explored. Why is this important? At present, being intelligent, and highly trained, as most clinicians have come to believe they are, it has become somewhat taken for granted that reading journal articles or books on meditation, and attending a workshop or two, perhaps even a week-long residential training retreat, qualifies one to begin using meditation processes with clients. However, is clinician training and competency in the use of meditation currently sufficient to ensure the safe and appropriate use of meditation, particularly for psychologically impaired clients, given the phenomena reported by long-term meditators and the judicious preparatory processes required by teachers in the wisdom traditions of origin?

Mary Clark, MScSc, 2012, Title: Relaxation/Stress Management Intervention With Women With Pregnancy Stress Anxiety
Dr Carrie Barber (Chief Supervisor, Dr Nicola Starkey)

Pregnancy is a time of change that has the potential to be a stressful experience for some women. There is evidence from animal and human studies that long-term exposure to maternal stress can be detrimental to the unborn baby, both before and after birth. Non-pharmacological interventions that are aimed at assisting pregnant women to mediate the way they respond to stress are particularly relevant for the pregnant population, due to the potential teratogenic risks associated with drug therapy. Mindfulness-based therapies have the potential to be beneficial for pregnant women. The aim of this study was to explore the effect of a brief biofeedback-assisted mindfulness meditation procedure on the physiological responses of pregnant women and their babies. Six women in the last trimester of pregnancy completed a brief mindfulness meditation procedure. Each participant’s physiological responses
Partners’ risk factors for anxiety included belonging to an ethnic minority and young pregnancy complications, low income level, significant on their own, risk factors for anxiety and depression. Although not were significantly correlated as were couples’ and depression than partners. All measures had almost identical rates of state (29.1% and 29.4%) and co-morbid anxiety and depression (10.5% for each gender). Furthermore, mothers experienced on average significantly higher trait anxiety and depression than partners. All measures were significantly correlated as were parents’ anxiety and depression. Although not significant on their own, risk factors for parents’ anxiety and depression included pregnancy complications, low income level, belonging to an ethnic minority and young age.

Partners’ risk factors for anxiety included belonging to an ethnic minority, low level of education and earlier stages of gestation. Only ethnicity was a significant risk factor for state anxiety after controlling for the others. Implications of this research are discussed.

Lily de Bruin, MSoSc, 2011, Title: Who Would Young People Seek Help For Particular Psychological Problems And Why Do They Prefer Particular Options More Than Others? Assoc Prof Doug Boer (Chief Supervisor), Dr John Fitzgerald This thesis explored the help seeking of adolescents. In particular it focused on who adolescents seek help from for particular problems, the relationship between the options they selected, gender, previous help seeking and psychological distress, their experiences of seeking help for themselves, providing advice to friends and their opinions of help seeking for adolescents. One hundred and forty three adolescents between the ages of 15 and 18 who were attending two high schools in Hamilton, New Zealand, completed a Help Seeking questionnaire and the Youth Outcomes Questionnaire-30.2 (YOQ-30.2). Seven participants completed a semi structured interview focusing on their experience of seeking help. The results indicated that friends followed by parents were the help sources that were endorsed most frequently overall. Informal sources of help were selected more often than formal options. Of particular interest was the frequency with which ‘no one’ was selected as a first choice option. Males’ YOQ-30.2 total scores were significantly higher compared to females. Females were significantly more likely to have sought professional help in the past. Significant relationships were found between the help seeking options selected for the respective questions and gender and previous help seeking from a professional. Key themes that emerged from the semi structured interviews included increasing awareness of help options, the helpfulness, trustworthiness and friendliness of help sources, closeness of the relationship, what adolescents have heard about the help source, and the reaction of the help source when being informed about the young person’s difficulties. Males appeared to be more likely to encourage their friends to seek professional help and to feel confident in providing help to a peer. The implications of these findings were discussed in relation to the current literature.

Sarah Campbell, MSoSc, 2011, Title: The Experiences Of Youth Gang Members In South Auckland Dr Jo Thakker (Chief supervisor), Assoc Prof Doug Boer The purpose of this study was to understand the experiences of young people who were actively engaged in youth gangs. This included developing an understanding of the factors that both influenced and maintained their desire for youth gang membership. This was achieved by carrying out seven semi-structured interviews with young people aged between sixteen and twenty-three who were residing in the city of Hamilton, New Zealand. The interviews were recorded and transcribed verbatim to ensure the experiences of these young people were accurately recorded. A thematic analysis of the data was then carried out, highlighting both the themes and subthemes across the data set. Five primary themes were identified within this data set to highlight the factors that both influenced and maintained a desire for youth gang membership. This included the influence of friends, the availability of money, and a desire to participate in antisocial behaviours within the gang. Participants also explained the importance of their neighbourhood surroundings in facilitating youth gang membership. While these overarching themes have been previously reported within literature (Goldstein, 1991; Thornberry, Krohn, Lizotte, Smith & Tobin, 2003), the young people in this study offered their subtly unique experiences and journey into the gang lifestyle. The final theme highlighted the negative evaluation that these young people perceived to experience from others which influenced and maintained their desire to pursue the gang lifestyle. This finding is not as prevalent in the existing youth gang literature, but is discussed within the social psychology literature as the “self-fulfilling prophecy”.

One of the main findings of this study was that these young people were engaged in the youth gang lifestyle from as young as nine years of age. Once accepted into the gang, participants explained that they then began to withdraw from school and other mainstream activities to pursue their life in the gang. It then became difficult to present these young people with an alternative
to their chosen lifestyle as they had access to the support, tangible goods and respect that was desired. They were also accepted into a group of like-minded friends who existed as a substitute family. Further research is needed to better understand the variety of experiences that young people in New Zealand have when joining a youth gang.

Marie Townsend, MSoSc, 2011, 
Title: Māori Conceptualisations Of Dementia
Assoc Prof Doug Boer (Chief Supervisor), Dr Tess Moeke-Maxwell

E iti noa ana, na te aroha
(It is the giving that counts and not the size of the gift)

The purpose of this thesis was to investigate the perceptions of Māori health professionals about Māori elders and dementia. The study aimed to describe: Māori health care providers’ understandings of dementia; traditional versus contemporary understandings; how cultural beliefs affect experience; how Māori cope with dementia; key issues relevant to Māori people with dementia; and how services can be improved to meet the needs of aged Māori. The usefulness and possible cultural adaptation of the biomedical model has been explored within the context of a Māori worldview and the perceptions of participants. Semi-structured and in-depth interviews were conducted with eight mental health professionals and one caregiver. The information gathered at interviews was recorded within verbatim transcripts, which were written and returned to the participants for feedback. A qualitative data analysis was carried out on the approved transcripts.

The main findings suggest that Māori health professionals recognise that many Māori perceive dementia both from a traditional cultural perspective, associated with spirituality as well as a holistic understanding of wellness. Key issues identified by participants were: that there is fear associated with mental health facilities; the exclusion of cultural values and understandings from service providers is detrimental to the wellbeing of Māori elders; Māori do not understand the symptoms typically associated with dementia as an illness; there is a need for information and education within an appropriate frame for whanau; disjointed and multiple service providers inhibits Māori from accessing facilities offered; and that there is a real need for further services. It was considered important that mental health services are culturally appropriate, show respect for Māori values; are coordinated and sensitive; encourage and continue the development of a Māori mental health workforce; and further develop kaupapa Māori services for Māori elders.

The main implication of this research is that further investigation into Māori and dementia is required. Recommendations are made with a view towards better addressing some of the mental health needs of Māori elders.

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