AUSTRALASIAN HUMAN DEVELOPMENT ASSOCIATION

The Australasian Human Development Association (AHDA) is a multidisciplinary, non-profit association formed in the early 1980s. The goals of the Association are to foster and promote research on human development at all stages of the lifespan, including prenatal development, infancy and childhood, adolescence in various disciplines, as well as to inform social policy concerned with individual development, families and communities.

CURRENT GOVERNANCE OF AHDA

President: Claire Fletcher-Flinn, University of Otago, NZ
Secretary: Sue Walker, Queensland University of Technology, QLD
Treasurer: Melanie Zimmer-Gembeck, Griffith University, QLD
Services Co-ordinator: Helen Skouteris, La Trobe University, VIC
Webmaster: Sue Walker, Queensland University of Technology, QLD
Newsletter Editor: Neilson Martin, Curtin University, WA
AHDA Alerts Editor: Levina Clark, Royal Adelaide Hospital, SA

Executive Committee:
New South Wales: Fiona White, University of Sydney
New Zealand: Claire Fletcher-Finn, University of Otago
Queensland: Sue Walker, Queensland University of Technology
South Australia: Margaret Chandler, University of South Australia
Victoria: Mary Ainley, University of Melbourne
Western Australia: Robin Harvey, University of Western Australia

AHDA CONFERENCES

AHDA holds a scientific conference every two years. The conference serves as Australasia’s leading venue for the latest research findings on basic and applied aspects of human development. AHDA conferences are well known for providing a successful combination of academic rigour and a friendly, collegial atmosphere.
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On behalf of the Local Organizing Committee, I am delighted to welcome you to the 17th Biennial Conference of the Australasian Human Development Association (AHDA). We are delighted to welcome colleagues from Schools of Psychology, Education, Health, and a range of other professionals working in areas related to human development. AHDA 2011 brings an exciting diversity of material. As well as our five keynote addresses, the scientific programme includes individual papers and posters, as well as symposia. Topics cover a wide range of areas of interest in human development, reflecting basic as well as applied developmental research. We expect the resulting programme will constitute an exciting academic forum for established researchers and students, and of great interest to a wide range of service practitioners and policymakers.

We are fortunate to be able to continue a scholarship programme for postgraduate students, and a hearty congratulations to all those who have been awarded scholarships. During the conference we will also be awarding a number of students prizes for excellent presentations.

The 2011 AHDA conference acknowledges support from the University of Otago, with special thanks to the Division of Humanities for a Conference Research Grant, the Division of Science, the Department of Psychology, and the College of Education. Many thanks also to all the authors, symposium convenors and session chairs for contributing to the conference.

We hope you have the opportunity to hear the latest in developmental research, and to meet with old and new friends.

Claire Fletcher-Flinn, PhD
Associate Professor, College of Education, University of Otago University
and AHDA President and Conference Convenor
The AHDA executive would like to thank the following people who have generously contributed to the organization of the 2011 AHDA conference.

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<tr>
<th><strong>President and Conference Convenor</strong></th>
<th><strong>Abstract Review Panel</strong></th>
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<td>Claire Fletcher-Flinn</td>
<td>Carol Barber</td>
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SCHOLARSHIPS AND AWARDS

SCHOLARSHIPS FOR POSTGRADUATE STUDENTS

Congratulations to the six students awarded scholarships:
Rhiannon Hand, Department of Psychology, Macquarie University
Nikki Johnson, Department of Psychology, Macquarie University
Kathy Knox, School of Psychology, Griffith University
Jeanette Lightfoot, Department of Psychology, Macquarie University
Karen O’Brien, School of Psychology, University of Queensland
Qilong Zhang, School of Teaching, Learning, and Development, Faculty of Education, University of Auckland

AHDA POSTGRADUATE STUDENT AWARDS

AHDA is keen to encourage students to present high quality posters and papers at the conference. To achieve this aim, we are offering six student awards for excellent conference presentations. Students receiving an award will each receive a cash reward of $500 and a Certificate of Excellence.

A panel of experienced researchers will judge the awards, based on the content of the presentation, the ability of the presenter to convey with clarity and interest the theoretical and methodological bases and findings of the research, as well as the quality of the discussion points or conclusions drawn from the findings. These awards will be judged during the conference, and the winners will be announced at the end of the conference.
CONFERENCE VENUE
The 2011 AHDA conference will be held at the College of Education, University of Otago, 145 Union Street East, Dunedin. The scientific programme will be at the College Auditorium and Levels 1 and 2 in the Tower Block Teaching Wing. A map of the University of Otago and the College is at the back of the book.

REGISTRATION AND INFORMATION DESK
The registration desk will be located in the College Conference Room. Please direct enquiries during the conference to volunteers at the desk.

CONFERENCE BADGES
Upon registration you will receive a satchel and your conference badge. This badge acts as a pass into all AHDA conference venues. Please wear it at all times.

SCIENTIFIC PROGRAMME
The scientific programme begins on Monday 4 July at 9am sharp with a Māori welcome and opening by the Pro-Vice Chancellor for Science. The first keynote address starts at 9.20 am.

SYMPOSIA AND PAPER SESSIONS
Presenters should have their Powerpoint files uploaded on the computer at least one hour before their presentation. Files can be tested on laptop computers in Room T103, as well as uploaded to the appropriate Seminar/Presentation room.

POSTER SESSIONS
The poster session will be held in the College Conference Room on Wednesday from 12pm (mid-day) – 1:15pm. Presenters should set up their posters on the poster boards at least 10 minutes before the poster session begins.

VOLUNTEER ASSISTANTS
Volunteer assistants will be clearly identifiable. They are available throughout the conference to answer your questions and to provide general assistance.

EMAIL AND INTERNET ACCESS
The venue for the conference has nearby wireless internet connection access, and guest log-ins and passwords have been arranged to allow delegates access to emails and internet during the conference. The nearest wireless area is located at the Robertson Library approximately 100m from the college. Usernames and passwords will be issued at the same time as registration. For those without personal computers wishing to check email the computer labs in G05 and G06 will be available.

MEALS
Morning and afternoon tea and lunch will be served in the College Staff Room. A vegetarian option will be provided for all meals.

SMOKING
Smoking is not permitted in any rooms in any buildings at the University of Otago.

SHOPS AND AMENITIES (see campus map in back of booklet for details)
BOOKSHOP – University Book Shop, 378 Great King Street Dunedin
REAL COFFEE
Fluid, 138 Union Street Each, Corner of Union & Forth Street
Ako, in the Otago Polytechnic Student Centre, Harbour Terrace
The Fix, Centre for Innovation, University of Otago
Cafe Albany, located in the University Union, next to the Central Library in the Information Services Building, (65 Albany Street)
FOOD OUTLETS (easy walking distance)
University Union, next to the Central Library in the Information Services Building, (65 Albany Street)
University of Otago Staff Club (near Clock Tower; coffee and early evening drinks available)
Formosa Delight, 114 Albany Street
Eureka Cafe, 116 Albany Street
The Good Earth Cafe, 765 Cumberland Street
Capers, 412 George Street

SUPERMARKETS
Centre City NewWorld, 133 Great King Street, Dunedin
Gardens New World, 6 North Road, Dunedin

DAIRY
Campus Wonderful, 138 Union Street East (corner of Union and Forth Street)
Rob Roy, 500 George Street (corner of Albany and George Street)
Dundas Corner Dairy, 60 Dundas Street (corner of Dundas and Cumberland)
Regent Night ’n Day, 2 Regent Road (corner of Regent and George Street)

PHARMACY
Urgent Pharmacy, 95 Hanover Street Ph 4776344, Open 10am-10pm
Albany Street Pharmacy, 27 Albany Street Ph 4775115

POST OFFICE
Dunedin North Post Office 366 Great King Street
ATMs (closest to conference) - Westpac in the Otago Poltechnic Student Centre Harbour Terrace,
BNZ in The Commerce Building, Level 3, Union Street,
University Union, next to the Central Library in the Information Services Building, (65 Albany Street)

BANK
BNZ 58 Albany Street (near corner of Albany and Cumberland Street)
KiwiBank, 366 Great King Street (near Albany Street)
National Bank, 62 Albany Street (across street from Central Library)

HAIR DRESSING
Klone Hair, Corner Albany and Great King Street

PUBLIC TELEPHONES
Ground Floor, Tower Block, College of Education, 145 Union Street East

PHOTOCOPYING
The Robertson Library, 135 Union Street East
Uniprint Shop, Ground Floor of Central Library (Information Services Building, 65 Albany Street)

LIBRARY
The Robertson Library, 135 Union Street East
Central Library (Information Services Building, 65 Albany Street)

GROUND TRANSPORT
BUS SHUTTLES TO AND FROM THE AIRPORT
Super Shuttle, 0800 748 885
Dunedin Taxis Airport Shuttles, (03) 477 6611

TAXI SERVICES
Southern Taxis 476 6300
Otago Taxis, (03) 477 3333
Citi Taxis (03) 477 1771
Dunedin Taxis (03) 477 7777

EMERGENCY NUMBERS (Police and Ambulance) - Phone 111
Dunedin Urgent Doctors and Accident Centre 95 Hanover Street Ph 479 2900 Open 8am-11:30pm every day
Dunedin Public Hospital 201 Great King Street Ph 474 0999
SOCIAL PROGRAMME

The Welcome Reception begins in the Staff Room of the College of Education at 4pm on Sunday 3rd July.

On Monday, there is a Central Otago wine tasting event at the Department of Psychology Staff Room, The William James Building, 275 Leith Walk, from 5:30-7:30 pm.

The Conference Dinner will take place at Larnach Castle, 145 Camp Road, Company Bay, beginning with drinks at 7.00 pm. Buses leave from the College at 6.30 pm, sharp. A small number of tickets to the dinner will be available for purchase at the Conference from Monday 4th July 2011.
HOW TO DO STATISTICAL MEDIATION AND MODERATION: AN INTRODUCTION

9am – 12pm G05 and G06 (see map for details)

Associate Professor Paul Jose
Department of Psychology
Victoria University of Wellington, NZ

This half-day workshop is intended to acquaint researchers (new, old, and in between) with the core statistical techniques of statistical mediation and moderation. These analytic techniques are not well taught in current textbooks, and widespread ignorance and misconceptions prevail in psychology, education, and other social sciences. The Baron and Kenny approach will be taught, but its extension into higher order platforms such as structural equation modelling, multi-level modelling, and bootstrapping will also be made.

A working knowledge of multiple regression will be assumed, but familiarity with higher order statistical methods (e.g., SEM, HLM) is not necessary, but will be helpful.

FINDING THE CHILD IN A MAZE OF ASSESSMENTS: STATISTICAL, GRAPHICAL AND QUALITATIVE APPROACHES TO LOOKING AT MULTIDIMENSIONAL DATA

1pm – 4pm G05 and G06 (see map for details)

Professor Jeff Smith
Education Assessment Research Unit
College of Education
University of Otago, NZ

Professor Smith will look at a variety of performance-based tasks that have been part of New Zealand’s national monitoring program for children at year 4 and year 8. He will look at developmental and ability level differences, along with presenting graphical techniques that are particularly useful for comparing the strengths and weaknesses of groups of children taken the same set of tasks in a given subject area.

These techniques are adaptable to measures in a variety of settings. Professor Smith will demonstrate the use of these techniques in the context of understanding the children’s abilities and challenges. The program used to make the graphs will be made available to attendees.

TECHNICAL ARRANGEMENTS AND NOTES FOR PRESENTERS

All presentations are to be uploaded to the computer in the relevant room during a prior meal break. Presentations MUST be available on the computer no less than 10 minutes before the start of each presentation.

Presenters are encouraged to ensure that their presentation is compatible with the technology at the Conference by using the “practice” equipment in Room T103. A volunteer at the registration desk will be happy to help you.
PROGRAMME AT A GLANCE
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<td>Theory of mind and social life in typical children and those with autism</td>
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<td>Social and understanding in older adults: Lying, implicit emotion recognition and explicit emotion recognition</td>
<td>Reading</td>
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UNDERSTANDING ADOLESCENCE: FROM BASIC SCIENCE TO PUBLIC POLICY

ABSTRACT

The transition between childhood and adulthood is characterized by a developmental paradox. Despite a substantial increase in physical strength and cognitive ability, there is also a dramatic increase in morbidity and mortality during the adolescent period. These high rates of morbidity and mortality are due, in large part, to high levels of risky behaviour during the adolescent period. Recent advances in the field of neuroscience have indicated that some structures in the human brain are not fully mature until at least 20-22 years of age. One of these late-maturing structures, the prefrontal cortex, plays a fundamental role in self-regulation, judgment, impulse control, and planning. We hypothesise that age-related differences in the prefrontal cortex also play an important role in heightened risk taking during the adolescent period. In this presentation, I will discuss how basic science on brain maturation might help us to understand the behaviour of adolescents and young adults. Using data collected in my laboratory and in others, I will explore the possible role of brain maturation in alcohol consumption, antisocial behaviour, and sleep patterns. I will also explore how these data might be used to inform policies and practices that affect young people. I will highlight both the risks and the opportunities that characterise this exciting stage of human development.

BIOGRAPHICAL SKETCH

Professor Harlene Hayne is the Deputy Vice-Chancellor (Research and Enterprise) at the University of Otago. Her specialist research interests include memory development, interviews with children in clinical and legal contexts, and adolescent risk-taking. Professor Hayne is a Fellow of the Royal Society of New Zealand and of the American Psychological Society. She is the Associate Editor of Psychological Review and of the New Zealand Journal of Psychology. She also serves on the editorial boards of 6 additional international journals. In 2009 she was awarded New Zealand Order of Merit for services to scientific and medical research. Professor Hayne is the Past President of the International Society for Developmental Psychobiology and is a member of the Society for Research in Child Development, the International Society for Infant Studies, and the Society for Applied Research in Memory and Cognition. She is a Board Member of New Zealand Genomics Limited and of the MSI Innovation Board. Professor Hayne was appointed by the American Ambassador to New Zealand to the Board of Fulbright, New Zealand. She is also the Co-chair of the Office of the Prime Minister’s Science Advisory Committee Working Party on Reducing Social and Psychological Morbidity during Adolescence and the Co-Director of the New Zealand Innocence Project. To date, she has published over 100 book chapters and journal articles and has supervised 20 PhD, 27 Masters, and more than 50 Undergraduate Honours theses to completion. In August, she will become the Vice-Chancellor at the University of Otago.
BEFORE THEY ARE BORN: FINDINGS FROM THE ANTENATAL PHASE OF THE GROWING UP IN NEW ZEALAND LONGITUDINAL COHORT STUDY

ELAINE REESE (University of Otago)
ereese@psy.otago.ac.nz

Growing Up in New Zealand is a new longitudinal cohort study of New Zealand children growing up in the 21st century. The aim of the study is to provide contemporary evidence on New Zealand children’s development into young adulthood in all domains: physical, cognitive, social, linguistic, cultural, and environmental. One distinguishing feature of Growing Up in NZ is that families enrolled their children in the study before they were born, and a comprehensive antenatal interview was conducted with both pregnant mothers and their partners. Another distinguishing feature of the study is that the families recruited are broadly generalisable to all current families having children in New Zealand in the 21st century. Their diversity reflects the diversity of families in terms of ethnicity, socioeconomic status and other parental characteristics. In particular the recruited cohort has adequate explanatory power to consider outcomes for children who identify as Māori, Pacific, and Asian as well as European and other New Zealanders. Over 6500 mothers and over 4000 of their partners participated in the antenatal phase of the study. In this symposium, we report on the diverse families and communities into which the children are being born. We also report on the psychological well-being of the pregnant mothers and their partners, the degree to which mothers are following recommended guidelines during their pregnancies, and the link between physical health (alcohol and smoking during pregnancy) and psychological well-being. Finally, we present the parents’ hopes, dreams, and expectations for their unborn children. These findings present a snapshot of the diverse families and communities into which the children of the study will be born. They set the stage for the health and development of the next generation of New Zealand children.

THE NEW GENERATION OF NEW ZEALANDERS – EVIDENCE FROM GROWING UP IN NEW ZEALAND

SUSAN MORTON
s.morton@auckland.ac.nz

Growing Up in NZ is a longitudinal cohort study following nearly 7000 children from pre-birth to early adulthood. The study will provide an up-to-date, population-relevant holistic view of child development in the context of 21st century NZ. It has recruited and collected information from mothers and fathers from before their children were born. It is unique in its capacity to provide a comprehensive picture of child development across multiple domains of influence and for including proportionate numbers of Māori, Pacific and Asian children as well as European and other New Zealanders. Children were recruited via their pregnant mothers in the Auckland, Counties-Manukau and Waikato DHB regions. These regions were chosen because of the diversity of the births in those areas and their collective ability to provide a generalisable cohort for all current New Zealand births. Longitudinal data are collected from before birth via a number of sources including: face-to-face interviews; biological samples; linkage to routine perinatal and health records, and regular phone calls. Data collection is complete in the field up to the 9-month stage, with all the data collated and analysed from the antenatal data collection completed in 2010. This talk will focus on the baseline findings that highlight the diversity of our current new generation of New Zealanders. One in 3 recruited children has at least one parent who did not grow up in NZ and increasingly our children are being born into varied family structures and diverse home environments. For example only 80% of households use English as their primary language and 1 in 3 children has at least one parent who is multilingual. Household resources are often limited: 4 out of 10 children are born into families living in the most deprived areas of NZ and those families are often not aware of policies designed to assist them. The majority of mothers are in paid employment towards the end of their pregnancy and both parents would like to take more parental leave once their child is born than they are currently able to. Plans for early feeding, childhood immunisation, early child care, and how parents expected their children to identify themselves are also explored. NZ is changing rapidly. Our children are increasingly diverse and so are their environments. These children represent New Zealand’s future. The evidence this study is able to deliver over time will help to shape policies to optimise their future and the future of all current New Zealanders.
FAMILY RELATIONSHIPS IN DIVERSE FAMILIES HAVING CHILDREN IN NEW ZEALAND IN THE 21ST CENTURY - EVIDENCE FROM THE GROWING UP IN NEW ZEALAND LONGITUDINAL COHORT

JAN PRYOR
jan.pryor@vuw.ac.nz

This paper aims to describe the demographic diversity and the family relationships reported by 6822 families at the antenatal interviews of the Growing Up in New Zealand cohort. Both mothers and partners were interviewed at this stage of the study, before their babies were born. Family structure, household composition, and family dynamics are regarded as predictors of wellbeing for the children who are the focus of the project, and describing these characteristics of the cohort at this stage is important. Categories for household composition and family structure were identified. For household composition they were single parent in household; two parents in household; parent(s) living with kin; and parent(s) living with non-kin. Family structure groups were single parent; cohabiting parents; married parents; and stepfamilies. For mothers, percentages for household composition groups were: living alone 3.5%; living with partner 65.6%, Living with extended family 24.3%, and living with non-kin 6.6%. Percentages for family structure for mothers were: cohabiting 26%, married 61%, single parent 9.4%, and stepfamily 3.6%. Family variables included cohesion, conflict, quality of interparental relationship, family and personal stress, expectations of support, and neighbourhood integration. Preliminary analyses of differences in family variables were undertaken by both household composition. Analyses by ethnicity (NZ European, Maori, Pacific, Asian and Other) were also carried out. Demographic differences were compared where possible with data from Statistics NZ and patterns of household, family structure, and ethnic differences in family dynamics variables are described. The description of family structure and household composition, and family dynamics for the families is crucial for the understanding of the development of the children in the cohort. In particular, household composition and differences in dynamics across households has not been examined earlier; its implications for child wellbeing will be an important aspect of understanding influences on children growing up in New Zealand.

ASSOCIATIONS BETWEEN PARENTAL PHYSICAL AND MENTAL HEALTH DURING PREGNANCY: EVIDENCE FROM THE GROWING UP IN NEW ZEALAND ANTENATAL WAVE

KAREN WALDIE, ELIZABETH PETERSON, CAMERON GRANT, ELIZABETH ROBINSON, JAN PRYOR, POLLY ATATOA-CARR, AND SUSAN MORTON
k.waldie@auckland.ac.nz

Women are vulnerable to mental health problems during pregnancy, and depression and stress can have a significant and negative impact on the uterine environment. Poor mental health during pregnancy can also increase the risk for complications during delivery, low birth weight, and accounts for 10-20% of the population-attributable risk for emotional/behavioural symptoms in the offspring during childhood. Pregnancy can also initiate major changes in relationships with the partner, parents, extended family and friends. Lack of family cohesion and support constitutes an important risk factor for maternal well-being and quality of life during pregnancy and has adverse effects on pregnancy outcomes. The aim of the current study is to determine the association between antenatal maternal depression and other indices of mental health (perceived stress, family cohesion, social support) and physical health (activity, smoking, drinking, vitamin use) in a representative sample of New Zealand mothers. As part of the first wave of the Growing Up in New Zealand study, 6153 mothers were interviewed face-to-face and administered the Edinburgh Postnatal Depression Scale (EPDS). The EPDS focuses on the cognitive and affective features of depression and is the only self-report scale that has been validated for use both during pregnancy and postnatally. The following information was also collected from the mother: history of depression and anxiety, general physical health, activity before and during pregnancy, vitamin use, smoking and drinking behaviour, SES, perceived stress, and social support. The main findings were that prevalence of depression among pregnant women was 16.2% (n=997) and 731 of these were new cases (12.4%; no history of depression). Over half of those meeting depression criteria were in the highest socio-economic deprivation level and 14.2% were currently unemployed but looking for work. As expected, the correlation between depression symptoms and perceived stress was strong (r = .72, p < .001) and depression was significantly related to lower family cohesion and poorer self-perceived general health. Depression during pregnancy was also significantly
associated with alcohol use during the first trimester and current smoking (OR 2.5; 95% CI 2.06-2.98). The prevalence of maternal depression during pregnancy is high. It is important to determine the associations between mental and physical health during pregnancy for numerous reasons. Poor mental and physical health can have adverse effects on pregnancy outcomes while a healthy diet and regular physical activity level can promote a positive outcome, reducing problems for both mother and foetus.

PARENTS’ HOPES, DREAMS AND EXPECTATIONS FOR THEIR CHILDREN GROWING UP IN NEW ZEALAND IN THE 21ST CENTURY

JOHANNA SCHMIDT, ELAINE REESE, ELIZABETH PETERSON, SUSAN MORTON, & KAREN WALDIE

Parents’ expectations for their children predict children’s later educational and occupational success. To our knowledge, no study to date has measured parents’ expectations for children before they are born. Because parents’ expectations to some extent shape and are shaped by their children’s personalities and abilities, gathering parents’ expectations before their children are born can provide us with a purer measure than has previously been possible. We report on the data from the antenatal phase of the Growing Up in New Zealand study in which parents were asked to briefly talk about their hopes, dreams and expectations for their then-unborn babies. At the end of the antenatal interview, interviewers asked all participants (N = 6823 mothers; 4405 partners): “Please give us one or two sentences about the hopes, dreams and expectations you have for your baby.” The interviewers entered participants’ responses verbatim. We developed a coding system to capture participants’ responses, ranging from a focus on the health and happiness of their child and educational and occupational success, to participation in religious, cultural, outdoor, and community activities. Then we randomly sampled 15% of the larger sample, resulting in a final sample of responses from 1013 mothers and 689 partners. We have established reliability on our coding scheme between three independent coders on 10% of this subsample. Currently one of these coders is coding the remainder of the subsample. We will analyse the coded responses as a function of demographic variables, such as parents’ ethnicity and education level, to determine if parents’ hopes, dreams, and expectations differ as a function of their own characteristics and the community into which they are bringing their baby. We expect to find that regardless of education, ethnicity and cultural background, parents will have expectations for their children at both an individual level (I want my child to be confident and happy) and at a community/societal level (I want my child to be respectful and to care for the environment). As these data are from the antenatal phase of a longitudinal study, the main emphasis of this paper will be on a description of parents’ hopes, dreams, and expectations for their unborn children. However, we hypothesise that the emphasis parents place on different aspects of life while still expecting their children will be predictive of how they choose to invest various resources into their child’s development, and hence the eventual outcomes for that child.
ADOLESCENT RISK: HOW DO YOUTH AVOID NEGATIVE OUTCOMES?
KATHRYN MODECKI (Murdoch University)
K.Modecki@murdoch.edu.au
MELANIE ZIMMER-GEMBECK (Discussant)
Adolescence is a time of significant risk, as youth find themselves in contexts laden with a myriad of possible negative outcomes, from early sexuality to delinquency and violence. From a prevention perspective, this developmental period poses significant challenges, as adolescent decisions are heavily influenced by their social contexts and rely on peer versus family support for many choices. The current symposium contributes to current understanding of the factors that contribute to youth’s avoidance of and engagement in negative activities. The first study utilizes ten-year prospective data to examine a unique pathway to adolescent abstinence, one in which social isolation and peer rejection contribute to delayed age of sexual onset. The second study investigates two significant protective factors for youth psychosocial outcomes, family help seeking and support. This work finds that family help seeking, in particular, prospectively predicts psychosocial outcomes two years later including decreased depression and increased help-seeking from peers. The final study unpacks how adolescents themselves reason about their risky decisions, arguing that adolescent risk taking reflects the distinct priorities of the developmental period. All of the papers highlight the complex factors that contribute to adolescent outcomes, informing developmental theory and prevention.

ADOLESCENT SEXUALITY: A 10-YEAR PROSPECTIVE STUDY OF ADULT VIRGINITY
MARIE-AUDE BOISLARD, FRANÇOIS POULIN, & MELANIE ZIMMER-GEMBECK
m.boislard-pepin@griffith.edu.au
From a developmental perspective, adolescent sexuality is one of many processes occurring in the second decade of life that interacts with other concurrent changes, such as increased peer relationships and the formation for extra familial intimate relationships. By the end of adolescence, a majority is sexually active; however, around 10% of emerging adults report still being virgins (Halpern et al., 2006). A recent review concluded that adolescents who remain sexually abstinent until age 18 or after tend to be more committed to religious beliefs, to have more conservative attitudes and friends who also believe in postponing sexual behaviour, to live with two biological parents, to be more monitored by them and to have parents who communicate clear disapproval of adolescent sexual behaviours and values that do not support this behaviour; to use less alcohol and to be less delinquent (Zimmer-Gembeck & Helfand, 2008). However, this paper poses the hypothesis of an alternative pathway to adult virginity. Some individuals may have remained virgin by lack of social opportunities, social withdrawal and peer rejection, and this trajectory of isolation may have already started in childhood. To test this hypothesis, 349 participants (60% females) took part of a 10-year longitudinal study on social development. The data used in this paper covers the period from age 12 to 21. Peer nominations were conducted at the beginning of the study (Grade 6), and participants self-reported their sexual behaviours annually from Grade 9 and on. Globally, results show that young adults who report still being virgin at age 21 were rated by their peers as having less close friends in their network in Grade 6 ($F (1, 348) =4.72, p < .05$), more victimized ($F (1, 348) =24.73, p<.001$) and more isolated ($F (1, 348) =36.42, p<.001$). These findings give support to the less-known trajectory of childhood withdrawal and isolation as an alternative explanation of adulthood virginity.
Adolescent Help seeking and Family Support as Prospective Predictors of Psychosocial Outcomes

JESSICA A. HEERDE, J.W. TOUMBOUROU, S.A. HEMPHILL, & C.A. OLSSON

Adolescence is a time of considerable risk, wherein youth’s physical and emotional world undergoes significant transition. Two protective responses to the sizable stress of adolescence are youth help-seeking and support from the family. Help-seeking behaviour has traditionally been investigated within the theoretical framework of social support. However, it is possible that adolescent help-seeking behaviour may be a distinct process and not simply a part of social support, although both are linked to positive psychosocial outcomes for youth. Whereas social support refers to the availability and provision of support within a social network, such as the family; help-seeking refers to the individual and their capacity to mobilise or activate psychosocial resources within social support networks. There have been few studies of the factor structure of typical social support measures to examine whether potential theoretical differences in the constructs of help-seeking and social support items fall out as separate constructs in adolescence. Participants were 1,704 adolescents drawn from the Resilient Families Research Initiative, a longitudinal randomised controlled trial of adolescent health assessed at three time intervals (2004, 2005 and 2006). Self-report data was used in exploratory factor analysis, correlational and multivariate regression analyses to investigate relations between early adolescent family help-seeking, family support and psychosocial outcomes. Family help-seeking and aspects of family support emerged as distinct factors. Small to moderate protective associations were observed between family help-seeking and prospectively measured psychosocial outcomes, including depressive symptoms and help-seeking from peers. Family help-seeking was associated with a range of family support domains, and protective effects for psychosocial outcomes. Family help-seeking appears to operate in interaction with family support domains, and may prime other forms of help-seeking prospectively. Future research should continue to examine the protective factors of family help-seeking and support and their unique associations with adolescent psychosocial outcomes.

How Do Adolescents Think About Risky and Antisocial Choices?

KATHRYN LYNN MODECKI
K.Modecki@murdoch.edu.au

Adolescent’s propensity to engage in risky behaviour is often viewed as “irrational,” and prevention programming typically endeavours to teach youth to “stop and think” before partaking in negative activities. Yet emergent research argues quite the opposite; adolescent risk taking reflects the distinct priorities of the developmental period (Reyna & Farley, 2006). By this tenet, a protective response to adolescent risk would be to engage an immediate, gist-like response and “just say no” to peers. The current study tests the assumption that adolescent risk-taking is a fairly normative response to a reasoned decision process via the following hypotheses: Adolescents identify greater value in risk taking behaviour and do not underestimate risk relative to adults. Experience does not “teach” adolescents to avoid risk; and mature decision making is associated with gist-based as opposed to deliberative processing. The study compared US adolescents (ages 12-18, n = 266) and adults (ages 35-63, n= 261) on reported reasoning in response to open ended hypothetical antisocial decision vignettes (shop lifting, cheating, and fighting; adapted from Ford et al., 1990). Findings largely support the notion that adolescent risky decision making reflects a reflective and reasoned decision process. Adolescents perceive greater benefits in antisocial behaviour than adults; Adolescents mentioned more perceived incentives, displayed greater peer influence, and anticipated greater peer involvement in antisocial acts than adults. Adolescents also displayed a positive reward bias in antisocial decision making as compared to adults: Youth had a higher benefit to cost expectancy ratio, placed a heightened importance on positive expectancies, and had a higher risk threshold for willingness to engage in antisocial acts than adults. Finally, adolescent displayed greater depth of processing and reported greater experience with the hypothetical scenarios than adults. These findings suggest that adolescent risky decision making may not be “illogical,” but instead may reflect differential values and goals of youth relative to adults. Adolescent antisocial decisions were largely on expected benefits of illicit behaviour. Results parallel Reyna and Farley’s (2006) argument that that mature decision making is often more “gist based” than deliberative. Prevention programming would likely benefit from treatments based on adolescent’s unique decision process in risky contexts.
INFORMATION
GETTING INVOLVED: EXAMINING THE ACTIVITIES OF YOUNG PEOPLE
SUSAN FARRUGGIA, RICHARD HAMILTON, & ELIZABETH PETERSON (University of Auckland)
s.farruggia@auckland.ac.nz

Adolescent research has traditionally taken a deficit focus focusing on problems. An alternative model is positive youth development (PYD), a strength-based approach, which suggests that all youth have potential, particularly through participation in meaningful activities. Previous research in the U.S. has found that involvement in activities is associated with greater well-being, but less is know how these associations in New Zealand where the ethnic and social context is different than the U.S., as well as the features of the programmes that moderate the associations between participation and well-being. This study: 1) examines the activities that young people are engaged in, 2) examines associations between participation and indicators of well-being, as well as school engagement as many of the activities are school-based, and 3) examines how features of those programmes, such as have a positive role model, moderates the associations between participation and well-being. Participants (age: m=14.26 (.49) years old; 69% female) were 995 ethnically-diverse year 10 youth (35% Asian, 33% Pākehā, 16% Pasifika, 10% Māori, and 6% other) who attended one of five secondary schools in the Auckland area. All participants completed a confidential, self-report questionnaire during a regular class period. Adolescents provided demographic information, as well answering questions on indicators of well-being such as self-esteem, self-reliance, critical thinking and life-long learning. They also provided information on the types and characteristics of activities they are involved in. Using PASW 18.0, the types of activities young people participated were examined. Most young people were involved in at least one activity and team sports were the most common type of activity. Most young people spent one to five hours per week engaged in activities; however, 40% spent more than 5 hours per week on their activities. Involvement in activities was associated with self-esteem, self-reliance, school connectedness, life-long learning and critical thinking. Features of activities that are associated with positive outcomes include has a coach/leader who is caring and trustworthy, whereas being school-based is less important, even for school-related outcomes. These results suggest that the participation in activities is important for young people. Links to the MYD Youth Development Strategy will be discussed.

IS AUSTRALIAN ADOLESCENTS’ PARTICIPATION IN EXTRACURRICULAR ACTIVITIES LINKED TO THEIR SENSE OF SELF TWO YEARS LATER?
COREY BLOMFIELD & BONNIE BARBER (Murdoch University)
c.bloomfield@murdoch.edu.au

A substantial body of research has linked adolescent activity participation to numerous positive outcomes, and adolescents who participate in activities appear to have a more positive sense of self, which is particularly important during this period of development. However much of the research in the field is cross-sectional in nature and therefore limited in terms of conclusions about causal direction. The current research addressed this limitation through a longitudinal study examining whether adolescents’ portfolios of extracurricular activity participation were associated with general self-worth, and academic and social self-concept, two years later, after controlling initial levels of self-worth and self-concept. A sample of 1195 adolescents (mean age 13.9 years at Wave 1; 59% female) from 31 diverse high schools across Western Australia responded to a computer-administered survey at two time points two years apart. Participants completed measures of general self-worth and social and academic self-concepts. An extracurricular activity portfolio variable was created; adolescents who did not participate in any extracurricular activities were coded as no participation (11%); adolescents who only participated in non-sport activities were coded as activities-only (9%); adolescents who only participated in sport activities were coded as sports-only (35%); and adolescents who participated in at least one sport and one non-sport were coded as mixed participation (45%). A between-groups ANCOVA revealed a main effect of portfolio for general self-worth ($F(3,1195) = 3.46, p = .02$). Adolescents with mixed participation portfolios at Wave 1 had a significantly higher general self-worth two years later compared to adolescents with no participation and sports-only portfolios. A main effect of portfolio for academic self-concept ($F(3,1192) = 2.89, p = .01$) was found. Adolescents with mixed participation portfolios at Wave 1 had a significantly higher academic self-concept two years later compared to adolescents with sports-only portfolios. A main effect of
portfolio was also found for social self-concept \( F(3,1193) = 3.88, p = .01 \). Adolescents with mixed participation and sports-only portfolios at Wave 1 had a significantly higher social self-concept two years later compared to adolescents with activities-only portfolios. The current findings suggest that the benefits afforded to youth who participate in mixed extracurricular portfolios, previously identified in cross-sectional research, appear to continue for at least a further two years. The ongoing positive relationship that mixed participation portfolios have on an adolescents’ sense of self suggests that continued diversification of youth extracurricular activity involvement is necessary.

**DOES PERSONALITY PREDICT THE DEVELOPMENTAL EXPERIENCES OF ADOLESCENT PARTICIPANTS IN EXTRACURIcular ACTIVITIES?**

HELEN DAVIS & BONNIE BARBER (Murdoch University)
hdavis@murdoch.edu.au

The potential benefit of organised leisure activities in adolescent development is widely acknowledged. Benefits are thought to occur via the developmental experiences (DE) afforded by the activities, such as leadership and teamwork, opportunities to try new things, to set and achieve goals, and to interact with positive peer and adult models. Nevertheless, individual differences in personality may influence whether adolescents choose to participate, the nature of the activities they choose, and, hence, the DE they encounter. Furthermore, personality may affect the DE that adolescents elicit from their chosen activities. This study was part of the Youth Activity Participation Survey of Western Australian schools, with 1657 adolescents in Years 8 and 10, from 36 schools surveyed. Students reported on their activity participation and DE within their nominated activities. They completed a brief measure of the Big Five personality factors: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. 70% of the sample reported participating in an activity. Logistic regression showed that overall participation was significantly predicted by higher SES, lower neuroticism, higher extraversion and higher conscientiousness (Nagelkerke’s R² = .11). Sport participation was predicted by higher SES, younger age, male gender, higher extraversion, lower openness, and higher conscientiousness (R² = .12); and non-sport participation was predicted by higher SES, female gender, lower neuroticism and higher openness (R²=.14). Personality had little influence on the specific sports or activities that adolescents chose. Multiple regression, predicting DE within a chosen sport or activity from individual factors and type of activity yielded significant results, with adjusted R² ranging from .04 to .23. Age and gender showed few significant independent associations with DE. Lower SES predicted several positive DE in sport. Participation in a creative art or academic club was associated with a range of positive DE. Extraversion predicted high ratings of all of the interpersonal DE, and, in sport, task-oriented DE. Openness predicted greater task-oriented DE. Agreeableness predicted more positive experiences of adult mentors, but lower ratings of several DE in a sport context, possibly reflecting discomfort with competitiveness. Conscientiousness predicted a wide range of positive DE, particularly in sport. Neuroticism predicted more negative interactions with peers and adults, less personal success and reward for perseverance being reported. Thus, opportunities for particular DE vary somewhat among extracurricular activities but the DE that adolescents report reflect their personality traits, independent of their choice of activity. Findings indicate particular value in sport participation for adolescents of lower SES.

**ADOLESCENT BROTHERS AND SISTERS OF CANCER SURVIVORS. THE FORGOTTEN FAMILY MEMBERS?**

ELEANOR RIDDICK & ELIZABETH PETERSON (University of Auckland)
erid006@aucklanduni.ac.nz

This study investigates the psychological wellbeing of adolescents who have a brother or sister discharged from treatment and in remission from cancer. Each year, around 170 young people aged 0-19 are diagnosed with cancer. This is the start to a period in which family roles and rules are challenged as the family adapts to caring for a severely ill child. Of these young cancer patients, approximately 80% will have siblings, but of all the psychological research around paediatric cancer, the sibling is the least acknowledged member of the treatment team. Sibling invisibility is pervasive, occurring not only in research, but also in family units; in which siblings are often asked to put their needs aside while the patient is treated, and in local communities; where siblings are more frequently asked “how is your brother/
Professional understanding of patient challenges associated with remission and cure is growing, but research into sibling adjustment to survivorship is lacking. In this paper we will report the findings from a questionnaire (currently in progress) of approximately one hundred 12-18 year old siblings of cancer survivors. The questionnaire is designed to investigate the potential mediating and moderating factors for psychological wellbeing of adolescents with a sibling discharged from treatment and in remission from cancer. In studying this we hope to gain a better understanding of what supports positive adaptation. The questionnaire contains a number of sections, measuring wellbeing, self-esteem, depression, optimism, perceived fairness of parental treatment, quality of the sibling relationship, peer attachment, and family cohesion. Analysis will involve establishing the prevalence of poor or positive adjustment in this population relative to normative groups (where available), and establishing baseline rates of particular issues in this population. Relationships and optimism will be examined, particularly in relation to levels of wellbeing, self-esteem, and depression. Results from the quantitative section of the study will be substantiated by limited information from one-to-one interviews which will be in progress at the time of presenting. A number of charitable organisations serving these families in New Zealand have already expressed interest in the results of this study and are keen to use the findings to improve their service to siblings and identify key areas to target interventions.

THEORY OF MIND
AN INVESTIGATION OF SOCIAL ATTENTION IN THE DEVELOPMENT OF AUTISM
CHERYL DISSANYAKE, CATHY BENT, & JOSEPHINE BARBARO (La Trobe University)
c.dissanayake@latrobe.edu.au

The core deficits in autism manifest from reduced opportunities for social learning during critical periods of development. One of the earliest and most persistent indicators of autism is atypical social gaze. Objectives: The first aim in the current study was to investigate differences in social attention at 18 and 24 months in toddlers with and without autism. The second aim was to chart the development of social attention from 18 to 24 months in children meeting criteria for Autistic Disorder (AD) and the milder Autism Spectrum Disorder (ASD). The final aim was to explore the relationship between social attention at 18 and 24 months and the severity of autistic manifestations and cognitive ability at 24 months. Participants comprised 37 toddlers diagnosed with AD, 48 with ASD, and 19 children with a developmental delay and/or language delay (DD/LD). Autism diagnoses were based on the ADOS and the ADI-R, and cognitive ability was assessed with the Mullen Scales. Attention to the social partner (Social Gaze), to the area of joint activity (Joint Activity), and Non-Social Gaze were coded off videotapes (by a naïve coder) for 10 minutes during interaction with an adult social partner at 18- and 24-months. The toddlers with autism showed specific deficits in Social Gaze at 18- and 24-months, and these deficits are more profound in individuals with AD compared to ASD. However, no differences were found between the groups in Joint Activity or Non-Social Gaze. Social Gaze at 18 and 24 months was found to predict autism severity (ADOS scores) at 24 months, while Joint Activity at 24 months was found to predict concurrent cognitive ability. The findings indicate the importance of early opportunities for social learning in the ongoing development of children with autism, and assert the role of reduced Social Attention augmenting impairments in social development and brain specialization.

CHILDREN WITH AUTISM'S RESPONSES TO DIRECT GAZE DURING IMITATION TASKS
GIACOMO VIVANTI (La Trobe University)
g.vivanti@latrobe.edu.au

From infancy and throughout development, children tend to direct their attention to a person’s face when his gaze is directed to them. The ability to prioritize the direct gaze over other information and to respond to it by establishing a mutual gaze is a crucial component in the development of communicative and social abilities, and plays a major role in regulating social interactions. It is currently not clear whether children show a similar sensitivity to the direct gaze. Using an eye-tracking paradigm, we tested the following hypothesis: Unlike typically developing children, children with
autism will pay special attention to a person’s face when the person will look at them. 18 children with autism and typically developing subjects matched for IQ and age observed a series of videos showing an actor performing actions on objects. During the video demonstration, the actor performed simple actions while sometimes looking straight at the camera (Direct Gaze condition) and sometimes looking at her own action the whole time (Averted Gaze condition). All participants were instructed to watch the video clips and then imitate the action that was performed. During the observation of the videos, participants’ eye movements were recorded using an eye-tracking system. There was a main effect of condition (p<.001) showing that both groups were more likely to disengage their attention from the actor’s action and direct it to the agent’s face in the Direct Gaze condition. No significant effect for group was found. In terms of the imitation performance, while the two groups performed equally well in the Averted Gaze condition, in the Direct Gaze Condition the control group performed better than the autism group (p<.05). Contrary to our hypothesis, both children with and without autism promptly detected the direct gaze and looked more to the actor’s face when she was looking at them. Thus, children with autism were sensitive to direct gaze and responded to it by directing their attention to the actor’s face. Moreover, they showed poorer imitative performance compared to the typically developing group in the Direct Gaze condition but not in the Averted Gaze condition. This result was not expected based on our working hypotheses. It is possible that agent’s direct gaze disorganized the behavior of children with autism. Implications for research and treatment will be discussed.

THE DYSFUNCTIONAL FAMILY ENVIRONMENT: OBSERVING THEORY OF MIND UNDERSTANDING IN CHILDREN WHO HAVE BEEN MALTREATED

JESS O’REILLY & CANDI PETERSON (University of Queensland)
j.oreilly@uq.edu.au

Maltreatment including physical abuse, sexual abuse, neglect and emotional maltreatment has been found to pose deleterious risks to all aspects of child development. To date, only two studies have attempted to assess false belief understanding in children who have been maltreated. Extending past research, the present study aimed to assess theory of mind (ToM) understanding in a sample of 40 school-aged children who had experienced maltreatment in comparison to a control group of non-maltreated children matched on age, gender and socio-economic status. The purpose of this study was twofold, firstly to explore extending lab-based ToM assessment to typically developing children in age groups older than preschool and secondly, this research hoped to move in a new direction by exploring the family environment namely, maltreatment as well as disruption to the family unit was observed in relation to ToM development. A number of both standard first and second-order ToM tasks were employed to assess ToM understanding. Of interest, preliminary analyses revealed significant negative correlations between ToM development and the degree of disruption and evidence of abuse. Possible explanations and implications of the findings are discussed.

MAPPING THE ASPERGER LANDSCAPE

SHARON CROOKS, D BIMLER, & J KIRKLAND (Massey University)
s.crooks@massey.ac.nz

According to Diagnostic and Statistical Manual (IV-TR), the authoritative source of contemporary professional guidance, timing of phrase speech acquisition can distinguish Asperger’s Syndrome (AS) from High Functioning Autism. However, this observation compounds issues surrounding adequate diagnostic criteria. Such difficulties often frustrate parents of children whom they suspect may be ‘different’ but for whom adequate, practical guidance with regard to diagnostics and ‘treatment’ is missing. In their search for answers concerned parents will pursue multiple referrals. As a first port of call, screening instruments are not widely accessible in New Zealand. Having such a tool could alleviate anxiety of concerned parents, teachers, and special education workers, general and clinical practitioners. As a first step in this direction a set of items was assembled from a variety of sources which have been reported as sensitive for highlighting behavioural characteristics of children with AS. Data gathered from teacher colleagues (n=38) using a custom-designed series of sorting tasks and accompanying analyses were sufficient to ‘map’ these 150 items. A semantic-like map not only shows similar items as being closer to one another but also provides a frame for
interpreting how items are associated; their ‘multidimensional’ location. ‘Profiles’ were then generated by caregivers (n=259) for target children using a customised ‘method of successive sorting’ task. Profiles provides caregivers, case-workers and concerned others a ‘local picture’ showing where their target-child fits into a larger AS landscape. Additionally, analysis of profile variance suggests that one third of this sample were characterised by one of five distinct profile ‘types’, suggesting that Asperger’s is not a ‘one-size-fits-all’ syndrome. Whilst this procedure may be suitable for developing as an initial screening tool offering individual profiling as well as developmental profile-tracking, it also has implications for development of interventions.
HOW WE HAVE CHANGED: MESSAGES FROM WECHSLER TESTS AND SUBTESTS

ABSTRACT

Over the last 60 years, Americans have gained about 18 points of Full Scale IQ on the WISC (Wechsler Intelligence Scale for Children) and the WAIS (Wechsler Adult Intelligence Scale). This has had practical significance by inflating the IQs of men on death row and getting them executed. Differential gains on the Wechsler subtests, plus huge gains on Raven’s Progressive Matrices, illuminate social trends. These include the rise of the scientific ethos, the adaptation of our minds to the modern world, our failure to much enhance reading and numerical skills, and our IQ advantage over the developing world. The end of IQ gains in Scandinavia, but not in America and Britain, poses puzzles.

The fact that adults have made huge gains on active vocabulary compared to the children they socialize suggests hypotheses about the advent and strength of teenage subculture. Finally, each WAIS standardization sample suggests hypotheses about how different cognitive abilities decline in old age. For example there may be a bright tax for analytic abilities (the brighter you are the steeper the decline) and a bright bonus for verbal abilities (the brighter you the less steep the decline).

BIOGRAPHICAL SKETCH

James R. Flynn is Professor Emeritus at the University of Otago. His university awarded him an Honorary Doctorate and its Gold Medal for Distinguished Career Research. He has been profiled in Scientific American and named “Distinguished Contributor” by the International Society for Intelligence Research. The “Flynn effect” refers to the documentation of massive IQ gains from one generation to another. His book, What is Intelligence?, lays the foundation for a new theory of intelligence. It received extremely favorable reviews from Malcolm Gladwell, Steven Pinker, and R. J. Sternberg. His latest book, The Torchlight List: Around the world in 200 books, lists and analyzes works that both delight and educate about recent history and the world’s peoples.
Research over many years has striven to understand the development and sequelae of mental health problems, recognising their intractability and the negative consequences that ensue for individuals, families and society. Mental health problems impose a heavy burden of disease (Schulenberg & Zarrett, 2006). However, less attention has been given to positive development, that is the attributes and contexts that enable individuals to flourish and develop well. Positive development is not simply the absence of disease or disorder, but refers to the attainment of healthy psychosocial functioning. Greater understanding of the development of positive functioning among youth can inform health promotion efforts aimed at facilitating personal development and responsible social behaviour. Longitudinal studies are particularly suited to the study of developmental trajectories and processes as they can track continuities and discontinuities; identify sensitive periods and crossroads in development; detect and test models of relationships between earlier events or characteristics and later outcomes; and discern developmental sequences and pathways. This symposium presents findings from three long-standing, internationally renowned Australasian longitudinal studies, the Dunedin Multidisciplinary Health and Development Study (DMHDS), the Christchurch Health and Development Study (CHDS), and the Australian Temperament Project (ATP). The papers look particularly at links between problematic or positive functioning, and adjustment and wellbeing. First, from the ATP, Letcher et al. examine the consequences of differing adolescent anxiety profiles for early adult functioning. Groups exhibiting low, moderate, and high anxiety trajectories from 11-12 to 17-18 years were found to differ on a range of problematic and positive outcomes at 19-20 and 23-24 years. Gender differences were also explored. Second, from the CHDS, Gibbs et al. examine the protective effects of partner relationships for mental health. Longer relationship duration was associated with lower rates of depression, suicidal behaviour, and substance abuse/dependence, even after adjustment for a range of confounding factors. Finally, from the DMHDS, McGee et al. investigate the relative importance of social and academic functioning in childhood and adolescence for wellbeing at 32 years, focusing particularly on a sense of coherence, social engagement, positive coping, and prosocial values. The papers are exemplars of the value of longitudinal methods for understanding positive development and mental health across the life-course.

Anxiety is one of the most prevalent mental health problems in adolescence and young adulthood. Although heightened anxiety has been linked to later psychosocial problems, research has generally focussed on clinical populations and has rarely considered gender-specific pathways or possible confounding effects. Furthermore, few prospective studies have examined the effect of adolescent anxiety on later adjustment beyond investigating associations between anxiety and later psychological disorders. Thus, the relationship between anxiety and later positive and problematic outcomes is poorly understood yet has important implications for intervention and prevention programmes. Associations may be particularly complex during the transition to adulthood which is characterised by both great potential for positive change and a relatively high incidence of mental health problems. The present research employed a prospective design to examine young adult outcomes of differing anxiety profiles using data from the Australian Temperament Project, an ongoing longitudinal study of psychosocial development. The cohort of 2,443 infants, representative of the Victorian state population, was recruited in 1983 when the children were 4-8 months old. Using age-appropriate measures, a wide range of domains have been assessed over 15 waves. The aim of the present research was to examine how individuals with different patterns of anxiety in from late childhood to late adolescence differed on a range of psychosocial outcomes in young adulthood, including mental health problems, antisocial behaviour, positive development (e.g., social competence and civic engagement), employment status, and relationships with parents, peers and romantic partners. Previously reported trajectory analyses revealed three distinct patterns of self-reported anxiety from late childhood (age 11-12 years) to late adolescence (age 17-18 years), comprising low, moderate, and high (increasing) trajectories. Although the number of trajectory groups was the same
for girls and boys, there were gender differences in the shape of the trajectories and proportion of boys (n=626) and girls (n=667) belonging to each group. Individuals with different anxiety profiles were found to differ on a range of variables assessed at ages 19-20 and 23-24 years, including anxiety and depression. Implications of adolescent anxiety for later optimal development and problematic functioning are addressed. Findings provide insight into the associations between anxiety and both positive and problematic outcomes during the transition from adolescence to adulthood, shedding light on gender-specific pathways and the need for comprehensive, integrative approaches to treatment and prevention programmes.

RELATIONSHIP DURATION AND MENTAL HEALTH: FINDINGS FROM A 30-YEAR LONGITUDINAL STUDY

SHEREE GIBB
sheree.gibb@otago.ac.nz

Previous research has found that marriage has a protective effect on mental health, with married individuals having lower rates of depression, substance use disorders, and overall better mental health than individuals who are unmarried, separated or divorced. However, previous studies have reported these mental health benefits only apply to legal marriages, with those in non-marriage cohabiting relationships not experiencing the same mental health benefits from their relationships. One explanation for this could be that longer relationships have greater protective effects on mental health, and marriage relationships tend to be of longer duration than non-marriage relationships. The research described in this presentation examined the protective effects of partner relationships on mental health using data from the Christchurch Health and Development Study, a longitudinal study of a birth cohort of individuals born in Christchurch, New Zealand in 1977 and followed to age 30. The major aim of the research was to examine the associations between the duration of a partner relationship and mental health problems. Associations between relationship duration and mental health were examined using a generalised estimating equation approach, and associations were adjusted for a wide range of confounding factors. Longer relationship duration was significantly (p < .05) associated with lower rates of depression, suicidal behaviour, and substance abuse/dependence, even after adjustment for confounding. In most cases the associations did not vary with gender. Legal relationship status (legally married/de-facto) was not significantly related to mental health once due allowance was made for relationship duration. These findings suggest that increasing relationship duration, but not the legal status of a relationship, has a protective effect on mental health for men and women.

CHILD AND ADOLESCENT PATHWAYS TO ADULT WELLBEING

ROB MCGEE
rob.mcgee@otago.ac.nz

The Dunedin Multidisciplinary Health and Development Study is a 13 wave (38-year) longitudinal study of the health and development of around 1000 New Zealanders, born in 1972-73. While much of the earlier study of mental health emphasised disorder, measures of positive wellbeing have been included at various ages to assess attachment to others, involvement in organised activities and perceived competence. At age 32, we included a more thorough assessment of wellbeing, indicated by a sense of coherence, social engagement, positive coping and prosocial values. In a series of studies, we have been investigating the relative importance of child and adolescent social and academic pathways to later wellbeing. This presentation outlines our thinking and the research directions that we have taken to explore these pathways.
ADOLESCENT CONNECTION AND INVOLVEMENT ACROSS ECOLOGICAL CONTEXTS
KATHRYN MODECKI (Murdoch University)
K.Modecki@murdoch.edu.au

Connection to and involvement with different life-domains has important implications for adolescents. Although involvement in different ecological contexts such as schools and families is often considered protective for youth, the relation does not hold across all contexts in which adolescents find themselves. Instead, different durations and domains of connectedness confer different benefits as well as risks. Illustratively, continued versus short-term involvement in activity-participation may be required to effect adolescent outcomes. Further, negative peers present known risks to development, but the role they play in other ecological contexts such as community and extracurricular is yet to be understood. The peer context is itself multifaceted, and issues such as popularity and relational-aggression may have different implications on youth outcomes. The four papers in this symposium unpack the complex associations between adolescent connection and positive and risky outcomes utilizing samples of school aged youth in New Zealand and Australia. The first paper examines the importance of continued involvement in extracurricular activity profiles across two years of high school for adolescents' self-concept. The second paper examines connection to family, school, peer-group, and community as predictors of positive and negative outcomes two years later. The third paper tests specific extracurricular contexts as moderators of the effects of risky peers on negative adolescent outcomes one year later. The final paper focuses on the adolescent peer context, investigating the complex associations between concurrent popularity with peers, relational aggression, and internalizing symptoms. Collectively, these papers shed light on connection to and involvement with different ecological contexts as both protective and risky to adolescent development.

THE IMPORTANCE OF CONTINUED EXTRACURRICULAR ACTIVITY INVOLVEMENT DURING HIGH SCHOOL FOR ADOLESCENT OUTCOMES
BONNIE BARBER, COREY BLOMFIELD, & KATHRYN L MODECKI
blbarber@ag.arizona.edu

The opportunity to refine one's identity is a key aspect of socio-emotional development during adolescence, and activity participation offers a meaningful domain for such work. From global self-assessment to specific content areas related to participation, activities afford multiple opportunities to reflect on who one is, what one can do, and where one fits in. There has been a recent call for researchers to consider the patterns or profiles of activity participation, that is, ways that students combine multiple activities (Bartko & Eccles, 2003; Feldman & Matjasko, 2007). For example, some students play on a sport team or two, while others spend their time in academic clubs, and still others participate in a combination of different activities. This paper examines the importance of continued involvement in such activity profiles across 2 years of high school for adolescents' self-concept. A sample of 1183 adolescents (mean age 13.9 years at Wave 1; 59% female) from 31 diverse high schools across Western Australia responded to a computer-administered survey twice, two years apart. An activity portfolio variable with three categories was derived for each adolescent at each wave: not participating in any extracurricular activities = no participation; participating in either sporting or non-sporting activities (but not both) = single activity type; participating in at least 1 sport and 1 non-sport = mixed participation. A 3 (Wave 1 profile: no participation; single activity; mixed participation) by 3 (Wave 2 profile: no participation; single activity; mixed participation) mixed ANOVA nesting the 2-level “time” component within subjects was run for academic self-concept. A main effect of time was found for academic self-concept (F (1, 1183) = 44.22, p < .001), with adolescents reporting a higher academic self-concept at Wave 1 (M = 4.83, SD = 0.89) than at Wave 2 (M = 4.60, SD = 1.01). There was a significant three-way interaction between Time, Wave 1 profile, and Wave 2 profile (F (4, 1183) = 2.72, p < .05). The normative decline was less steep for those who maintained stable participation patterns, and was greatest for those who dropped activities. Those with the mixed profile in the first year had higher academic self concepts than their peers with one or no activities, but that advantage was retained only for those who continued participation in both types of activities 2 years later. Given the importance of participating in diverse types of activities, coordinated efforts are needed to increase the range of available activities for youth, particularly in under-resourced areas, and to facilitate youths’ continued involvement.
DIFFERENTIAL BENEFITS FOR ADOLESCENTS CONNECTED TO THEIR FAMILY, SCHOOL, PEER GROUP, AND COMMUNITY

PAUL JOSE
paul.jose@vuw.ac.nz

Recently researchers of adolescent development have become interested in the issue of social connectedness as a predictor of and protective factor for adjustment. A study by Resnick et al. (1997) obtained findings that family and school connectedness were powerful predictors of various aspects of adolescent maladjustment, and this set of results has stimulated a wide range of researchers to examine the phenomenon of connectedness. The pattern of findings has been consistent: adolescents who report high levels of connectedness also report low levels of negative indicators of wellbeing. What has been lacking, however, is research showing that social connectedness is a positive predictor of positive adolescent outcomes over time. A few studies have examined the relationship, but much remains to be done. In the present study, we examined connectedness by young adolescents to their family, school, peer group, and community. We predicted that connectedness would predict higher levels of positive outcomes and lower levels of negative outcomes generally, but that peer and/or community connectedness might lead some youth into maladaptive behaviours (e.g., drug use). Using a large sample of adolescents (N = 1774), we conducted a longitudinal assessment (self-report questionnaires) of connectedness in four domains and also assessed a variety of well-being indicators (e.g., future orientation, confidence, positive affect, negative affect, and substance use). Our design included three measurement occasions, each one year apart. The participants were 10-15 years old at Time 1, and approximated a nationally representative sample for New Zealand youth. All measures achieved at least adequate internal reliability. Residualised regression analyses verified that school and family connectedness were more powerful positive predictors of positives outcomes than peer and community connectedness. Family and school connectedness weakly negatively predicted negative outcomes, but importantly we found that both peer and community connectedness positively predicted negative outcomes in various ways: peer (unhappiness; alcohol use) and community (cigarettes; alcohol; illegal drugs). The present set of results suggests that different domains of connectedness confer different benefits. In particular, both family and school connectedness seem to be powerful predictors of a range of well-being outcomes such as future aspirations, confidence, perceived social support, life satisfaction, and happiness. In contrast, peer and community connectedness seemed to contribute little in these areas. However, peer and community connectedness seemed to be positive predictors of negative outcomes, particularly with regard to early signs of substance use and unhappiness.

SPORT AND ACTIVITY INVOLVEMENT AS MODERATORS OF NEGATIVE PEER INFLUENCE AND LATER ANTISOCIAL BEHAVIOUR IN WESTERN AUSTRALIAN ADOLESCENTS

KATHRYN LYNN MODECKI, BONNIE BARBER, & COREY BLOMFIELD
K.Modecki@murdoch.edu.au

Participation in extracurricular activities is a known protective factor for risky outcomes, from school truancy to delinquency (e.g. Mahoney, 2000). However, adolescents engage in structured sport and activities alongside their peers, and negative peer influence is one of the strongest predictors of antisocial behaviour. Given the prevalence of extracurricular activities in the daily lives of youth, it is important to understand whether specific extracurricular contexts moderate the effects of risky peers on negative adolescent outcomes. This study utilizes longitudinal data from Western Australia (YAPS-WA) and includes 1662 adolescents (56% female), recruited from 31 high schools. Adolescents participated in Wave 1 during Year 8 (n = 1002) or Year 10 (n = 660), and were followed up one year later in Year 9 (902) or Year 11 (589). Mean age for Wave 1 was 13.8 years (SD = 1.03, range 12-16). At both waves, youth reported on both their own and their peers’ antisocial behaviours: drug use, delinquent behaviour (e.g. stealing from a store), and school-based behaviour (e.g. skipping school). Youth participating only in sports reported on their sport-affiliated peers; youth participating only in activities reported on only their activity-affiliated peers; youth participating in neither reported on their non-extracurricular peers; and youth participating in both sport and activity reported on peers affiliated with both; and mean negative peer behaviour was used. We classified adolescents in two ways based on their Wave 1 participation. We categorized youth as either participating in at least one sport-activity or not (sport); and also as participating in...
at least one non-sport activity or not (activity). We then conducted two sets of multiple group analyses, testing the moderating role of sport or activity involvement on the association between wave 1 negative peer behaviour and youth antisocial behaviour one year later, net of demographics and other extracurricular involvement. Negative peer behaviour predicted adolescent drug use and delinquency for sport-involved youth, but not for youth who were uninvolved in sport activity. Negative peer behaviour predicted adolescent drug use and school-based behaviour for activity-involved youth, but not for youth who were not involved in activities. These findings suggest that the extracurricular environment is multi-faceted. Sport and activity-associated peers had consistent effects on adolescent drug use; otherwise, negative peers had different effects depending on extracurricular involvement. In addition to known protective effects, in the presence of risky peers, extracurricular involvement may demonstrate unique associations with different types of problem behaviour.

DEPRESSION AND ANXIETY IN ADOLESCENTS: THE PEER CONTEXT, POPULARITY WITH PEERS, AND SELF-REPORTED VERSUS PEER-REPORTED RELATIONAL AGGRESSION

MELANIE ZIMMER-GEMBECK
m.zimmer-gembeck@griffith.edu.au

The primary purpose of this multimethod, multimeasure study was to identify correlates of Australian adolescents’ (ages 9-15 years; N=335) depressive and social anxiety symptoms by focusing on the many positive and negative dimensions of their relationships with their peers at school. Participants were 158 boys and 177 girls in grades 5 to 10 in one private school. Participants reported their depressive and social anxiety symptoms, and their perceptions of their peers as either trustworthy and secure or untrustworthy and undependable. Measures of social status with peers and likeability among peers were gathered with peer nominations of who was liked or disliked, and who was more socially prominent and popular. Reports of aggression and victimisation were gathered via both self- and peer-report (using a nomination method) and discrepancies between reports were considered. Adolescents who reported more symptoms of depression and anxiety also self-reported more relational victimisation and reported their peers as less trustworthy. Adolescents who over-reported their own relational victimisation and aggression compared to peer-reports had more symptoms compared to those who agreed with their peers or under-reported their aggression and victimisation. Adolescents who under-reported aggression compared to their peers presented with a mixed profile; they were more socially prominent and popular, but also more disliked by their peers. When considered independent of self-reports, no measure of peer-reported peer status, aggression or victimisation was associated with depressive symptoms, but adolescents reported as more accepted by their peers had fewer anxiety symptoms. Overall, adolescents with poorer socioemotional functioning self-report more relational victimisation, over-report victimisation compared to reports from peers, and report their peers as more untrustworthy. In addition, when differences in self-perceptions and reports from peers are further considered, two other groups of adolescents are found. First, there are some adolescents who under-report victimisation compared to their peers and this group has lower socioemotional problems. Second, relational aggression when perceived by peers but under-reported by the self, seems to identify a socially prominent group of adolescents who are also disliked by their peers. This group has a moderate level of depressive symptoms but may be at risk for socioemotional problems in the future. Longitudinal research should be conducted to examine adolescents’ changing socioemotional problems as correlates of their discrepant reporting of aggression and victimization as compared to their peers.
Transition into university is a critical period in one’s life during which a key developmental and educational outcome is Self-Confidence. There are robust individual differences in metacognitive Self-Confidence, such that some students are habitually more (or less) confident towards their cognitive task performance than others despite similar levels of objective performance. The aim of the present study was to investigate the contribution of metacognitive beliefs, including academic self-efficacy and self-concept, and the motivational processes of Self-Esteem Protection and Self-Esteem Enhancement to individual differences in on-task Self-Confidence. The study also examined the prediction of the motivational and metacognitive processes to anxiety, as an index of psychological well-being. First-year undergraduate psychology students (N = 197) completed self-report measures of self-esteem and associated motivational strategies, metacognitive beliefs and anxiety, along with three cognitive tests with self-confidence judgments. Exploratory factor analyses suggested two distinct motivational tendencies – a Self-Esteem Protection factor indexed by self-esteem (with a negative loading), self-handicapping and defensive pessimism; and a Self-Esteem Enhancement factor indexed by self-esteem (with a positive loading), positivity embracement and favourable construals – along with coherent Metacognitive Beliefs, Accuracy and Self-Confidence latent factors. Results from a broad path analysis suggested that motivation has an indirect prediction on Self-Confidence via the mediational role of Metacognitive Beliefs. That is, Self-Esteem Enhancement significantly predicted higher Metacognitive Beliefs, and in turn, higher Self-Confidence; whilst Self-Esteem Protection significantly predicted lower Metacognitive Beliefs, and in turn, lower Self-Confidence. Self-Esteem Protection was also positively associated with anxiety levels. This study is the first to establish the contribution of motivation to on-task Self-Confidence. In the university achievement setting, it is important to recognise that students may be motivated to adopt strategies to protect their self-esteem, which may have detrimental effects on their Self-Confidence and anxiety levels. On the other hand, moderate levels of Self-Esteem Enhancement associated with positive levels of Metacognitive Beliefs and Self-Confidence may be desirable for students adjusting to university.

Understanding variations in adolescents’ adaptation to stressors and the factors and processes that account for these variations underpins the development of both theory and effective service provision. Most relevant research focuses on adolescents’ adaptation to long-term stressors (e.g., poverty) or non-normative stressors (e.g., bereavement). However, adolescents also experience normative stressors (e.g., puberty). These are challenges to adaptation that are experienced by most members of a developmental cohort and are anticipated by both members of the cohort and the wider community. In many societies, “high stakes” academic assessment is a normative stressor during adolescence. Unlike many other normative stressors, “high stakes” academic assessment is often encountered during the same, specific, predictable time period by an entire cohort. This study examined variations in adaptation among adolescents in two very different cultural contexts, Egypt and Australia, during final preparations for matriculation examinations with different “stakes”. Unlike the examinations completed by Australian students, the Egyptian matriculation examination is the sole basis for admission to university (i.e., no progressive assessment contributes to matriculation outcomes) and it has a high failure rate (approximately 30%). The samples included 427 Egyptian students from metropolitan Cairo and 195 students from metropolitan Adelaide. All students completed the Adolescent Resilience Questionnaire, a single-item rating of their subjective stress, and the Depression Anxiety and Stress Scales–21, in 2 months of the commencement of examinations. Results showed a high level of resilience in both samples. Most Australian and Egyptian students showed mental health symptoms that were within the normal range. However, a sizeable minority
of students in both samples reported high levels of subjective stress, or severe symptoms of depression, anxiety or stress. In both samples, girls showed higher levels of anxiety than boys. The protection offered by specific resilience factors appeared to vary across mental health symptoms and gender. However, in both samples, freedom from negative cognitions (e.g., rumination, catastrophizing) was the factor most consistently associated with protection from psychological distress.

**Socio-Emotional Key Competencies: What Young People Think They Need to Succeed**

TESSA BRUDEVOLD-IVERSEN & ELIZABETH PETERSON (University of Auckland)
tessabi@gmail.com

In its most recent curriculum, New Zealand introduced key competencies (KCs) that are intended to ensure students’ future participation in both the economy and the community. In addition to core subjects such as mathematics, English and science, the KCs introduce additional metacognitive and socio-emotional dimensions that students are expected to attain before they complete their compulsory time in school. The KCs have been incorporated into the school curriculum following an OECD recommendation for KCs to be included in curriculums in order to ensure ‘continued economic development’ and ‘social cohesion’. Despite an overarching guiding ‘structure’, each country that has agreed to incorporate KCs has chosen to do so in its own way and to varying degrees, decided by panels of ‘experts’. This presentation will present the perspectives on necessary socio-emotional skills by another group of ‘experts’: Twelve secondary school students from the Auckland region who have experienced the initial stages of the implementation of the KCs into their schooling. The discussion will centre on how their perspectives match the socio-emotional key competencies in the curriculum. This study is part of a doctorate thesis that uses thematic analysis to explore, among other things, how young people conceptualise the KCs and the value they place on socio-emotional skills. Preliminary results indicate that young people are primarily goal- and task-oriented in their value of KCs, but there is some variation in this – most notably in interpersonal relationships. The study demonstrates some of the ‘outcomes’ in socio-emotional KC conceptualisation by students, how they think they learn them best, and also suggests areas that could be further developed within schools and the community.

**The Other Side of the Chalk Face: Students’ Perceptions of Teachers and Teaching**

STEVEN S. SEXTON (University of Otago)
steven.sexton@otago.ac.nz

This paper reports on a research study that sought to investigate the altering perceptions of students about their teachers and teaching. Students from the Dunedin school system were interviewed in focus groups about how they saw teachers and teaching. Students were grouped into three age bands: Years 1-4, Years 5-8 and Years 9-13. They were selected from a range of schools: both male and female single sex; co-educational; and high, middle and low decile schools. Focus group interviews were carried out to allow the students to generate their own ideas and feed off each others’ ideas about their experiences. Initial results seem to indicate that Year 1-4 students have an initial focus on issues around the teacher making them feel physically safe. Once these issues have been met, students move on to issues around emotional and mental safety in both the classroom and the wider school. As student progress into Years 5-8, they have a strong sense of justice and want to know the teacher is firm but fair. Students see and remember when teachers apply rules differently to different students. Students also reported concerns over teachers who extended their negative attitude about either personal issues or school related issues into the room affecting students’ attitudes. By the time students are entering their secondary years, they want teachers who not only have a passion for the subject they are teaching but also can bring students’ passion out about the subject. Students reported the teachers who knew their subject well and could break it down to students’ level of understanding were seen as the more competent and desirable teachers. Two implications from this research are around the issues of apparently inappropriate media generated panic issues around the need for more male teachers in school as well as misguided attempts to gender match students and teachers.
CULTURE & DEVELOPMENT

THE DEVELOPMENT OF INTERGROUP HARMONY AMONGST MUSLIM AND CATHOLIC ADOLESCENTS: A LONGITUDINAL FIELDWORK EXPERIMENT

FIONA WHITE (University of Sydney) & HISHAM ABU-RAYYA (La Trobe University)
fiona.white@sydney.edu.au

Effective strategies to promote the development of harmonious intergroup relations during adolescence are both timely, and much needed. This is especially true when one considers that escalating tensions between Muslims and Christians are a growing national and international concern. Additionally, because adolescence is a period of identity change and formation, it provides developmental psychologists with an ideal platform for initiating attitude and behaviour change intervention programs. Taking these matters into account, the current fieldwork experiment developed and evaluated a new intergroup harmony program that integrated the psychological constructs of cooperative contact and dual identity. In 2009, 116 Muslim and 104 Catholic year-seven high-school students attending religiously segregated schools completed pre-test measures of ingroup/outgroup bias, knowledge and anxiety. Eight months later in 2010, when these students were in year-eight, for one hour a week across ten weeks, they participated in classroom-based intervention. Half the students were allocated to the experimental condition that involved Muslim and Catholic students interacting in four-person groups via a synchronous internet chat tool. These students were required to share their religious knowledge in order to develop a common environmental solution for creating a sustainable Australia. Each inter-religious group was required to present their solution in a poster format at the end of the program. The other half of students were allocated to the control condition where they completed the same program within their religious groups, with no intergroup contact or developing an interfaith environmental solution. Following the classroom program and poster presentation, all participants completed the measures administered at the pre-test phase. As predicted, the results revealed that for both Muslim and Catholic students in the experimental contact condition, implicit outgroup bias and anxiety decreased significantly, and outgroup knowledge increased significantly. There was no attitude change in the Catholic control condition, however the Muslim control sample reported a slight decrease in implicit outgroup prejudice. Overall, these promising results show that if designed carefully, school-based intergroup contact programs can develop intergroup harmony successfully amongst high-school adolescents.

ACCULTURATION, RELIGIOSITY, AND PSYCHOLOGICAL ADAPTATION AMONG AUSTRALIAN ADOLESCENT MUSLIMS

MARAM ABU-RAYYA (University of Sydney) & HISHAM ABU-RAYYA (La Trobe University)
mabu6291@uni.sydney.edu.au

The current study examined the identity of high school Muslim students in Australia and its impact on a range of psychological adaptation measures. Three hundred twenty-one students (149 males and 172 females) from Years 9, 1, and 11 studying at Muslim schools in Sydney metropolitan area participated in the study. The participants felt more attached to their cultural identity and religious identity than identifying as Australian. Cultural and religious identities were more important to psychological outcomes than Australian identity of the participants. Both cultural and religious identities were positively associated with school adjustment, life satisfaction, self acceptance, social relations, and environmental mastery, and negatively correlated with school problems, psychosomatic problems, depression, and anxiety. Australian identity more weakly predicted these outcomes. Cultural identity and Australian identity emerged as independent of one another and their interaction generated, using Cluster analysis, four acculturation styles. The acculturation identification style was the most endorsed by Muslim adolescents (54%), followed by the Separation style (26%). Assimilation and Marginalisation styles of identification were the least endorsed. Integration was the best for a range of psychological outcomes. Religious identity of the participants did not impact on participants’ sense of integration.
FAMILY RECOLLECTIONS AND SOCIAL CONTRIBUTIONS TO MĀORI CHILDREN’S LEARNING

TIA NEHA, ELAINE REESE, & TAMAR MURACHVER (University of Otago)
tagirl@gmail.com

When children become developmentally competent communicators it enables a smoother transition to school. Multiple opportunities of communicating between adults and children about whānau (extended family) based experiences are one pathway of investigating the child’s emergent literacy abilities. This longitudinal study explored oral narrative ability in 60 whānau Māori (extended Māori families) and their children to identify whether there was a narrative link to the children’s emergent reading skills after school entry. The children were aged between 3:6 – 5.00 at the commencement of the study. Family interviews and emergent literacy assessments took place in the home on two occasions during the preschool period. Oral narratives were elicited in a personal narrative context between the parent(s), significant others and their child(ren). The child was encouraged to relate personal experiences or draw upon their recollections on cultural, misbehaviour, special, novel, repeated whānau stories, the birth story and other significant events with their whānau. The narratives were recorded, transcribed and coded for parents’ conversational style. Parents also read a novel book with their children. These shared reading experiences were recorded and coded for emotion talk. Parents filled out a whānau questionnaire for background and socio-demographic information. The study then examined the child’s other key indicators to their emergent reading skills. These indicators were indexed with a battery of language, story understanding, literacy and self-regulation assessments at the start of the study and again 6 months later. Preliminary results have indicated that the children’s expressive language, story comprehension, and narrative quality were significantly correlated with their early literacy skills. Critically, the degree of Te Reo (Māori language) in the home was a unique correlate of children’s narrative skill in English, even after controlling for sociodemographic factors. In follow-up analyses, we will address the predictive power of children’s narrative skill for their later reading skills. We will also explore the predictive power of whānau narratives for children’s school readiness. These findings have important implications for the value of Te Reo and whānau narrative practices in preparing tamariki (children) for formal schooling.

WORKING TOWARDS IMPROVING RELATIONSHIPS IN AN INCLUSIVE SCHOOL CONTEXT: UNDERSTANDING THE NEEDS OF YOUNG REFUGEE STUDENTS

GEORGIANA CAMERON (University of Melbourne)
georgianaecameron@gmail.com

In the present study, a six week classroom-based conflict resolution program was trialled within mainstream and English language school settings to better understand the social and emotional needs of students with refugee backgrounds. The program, Play Fighting Fair, worked to create an inclusive classroom environment, strengthening relationships between students and staff by facilitating sessions about how to effectively cope with conflict. Baseline and post-test data was collected from 80 students regarding their exposure to traumatic events, time in Australia, psychosocial functioning and coping styles – productive, unproductive, reference to other (Adolescent Coping Scale; Frydenberg & Lewis, 1993). Within the sample, students with refugee backgrounds (38 in total) tended to be older, were more likely to be of Middle Eastern or African origin, to have been in the country less than a year and be attending a specialist English language school than non-refugee immigrant (19) and local (20) students. As expected, significant positive correlations were found between exposure to trauma and age, as well as exposure to trauma and unproductive coping style across the sample at baseline. Contrary to expectation, an ANCOVA controlling for age did not find that refugees indicated more exposure to traumatic events compared to immigrants or locals. Follow-up chi-square analyses on traumatic event items revealed that refugees were more likely to have been exposed to a sudden death of a person, fire and war-zones. ANCOVAs controlling for age compared refugee, immigrant and local students on coping styles at baseline. When asked how they coped with interpersonal conflicts refugee students indicated reference to other coping style significantly more than immigrant or local students. In particular, refugee students were more likely to use coping strategies such as seeking spiritual support or seeking to belong. For refugee students, the effect of seeking spiritual support was higher in English language school settings compared to mainstream, and vice versa for the effect of seeking to belong. Findings are discussed in relation to: (1) the validity of measures used
with young refugee populations, (2) how particular experiences of trauma may affect the resolution of conflict within relationships, (3) the role of spiritual support within Australian secondary schools, and (4) the adaptive or maladaptive value of seeking to belong in interpersonal conflicts. By understanding how students typically cope with conflict, this study provides a starting point of how to create inclusive school settings in line with current Australian policy as young refugees’ transition between settings.
ADOLESCENT WELL-BEING: CORRELATES AND IMPLICATIONS FOR POLICY AND RESEARCH

HELENA MCANALLY (University of Otago)
helena.mcanally@otago.ac.nz

Recent research into brain development has highlighted the fact that the adolescent brain is still developing, and that this development continues into early adulthood. Adolescence, however, marks a time during which children traditionally transition into more adult roles; beginning to drive, work, develop their relationships and formulate a sense of identity. Despite, or perhaps because of, this transition into adult roles, adolescence can also be a time of vulnerability and risk for both illness and injury. Thus research into factors that put adolescents at risk or, protect adolescents from harm, is important. It is also important to determine if these factors operate in similar ways for adolescents as they do for adults and children. This symposium begins by looking at the relationship between narrative identity and well-being in adolescents. Although it has been posited that having a strong sense of narrative identity (which is associated with greater well-being in adults) may be beneficial for adolescents, early research indicates this is not necessarily the case. It may be that the beneficial effects of a strong narrative identity gained by adults are related to developmental changes and consequently not present during adolescence. This highlights the importance of adolescence as a developmentally distinct period, different from both childhood and adulthood, and with its own set of risk and protective factors. Once such protective factor may be resilience, which has traditionally been considered to be largely genetic trait, although recent research has focused on psychosocial determinates as well. The second talk in this symposium describes longitudinal research into determinants of resilience. Interestingly, well-being is a predictor of resilience in adolescence, such that greater well-being predicts later resilience: the reciprocal relationship also exists, but is not as strong. The third talk in this symposium focuses on parent and peer attachment and how media use in adolescence impacts on this. Given the importance of positive attachment for well-being (and the importance of well-being for resilience) this research highlights the need for an awareness of how screen-based entertainment may be impacting on adolescents. Lastly, the implications of both biological and psychological development in adolescence are discussed. One implication is that (at least some) adolescents are likely to engage in risk-taking behaviour. Policy and education initiatives aimed at reducing risk among adolescents, or increasing their well-being to off-set risk, should be based on developmentally relevant research.

ADOLESCENT NARRATIVE IDENTITY AND WELL-BEING

HELENA MCANALLY
helena.mcanally@otago.ac.nz

Adults who are able to tell more coherent life narratives experience greater well-being, but this association is not present in early adolescence, suggesting age may moderate this link (Reese et al., 2010). Research also implicates gender and culture as important moderators of well-being and identity (McLean & Breen, 2009; Wang et al., 2004). The present research aims to examine the associations between life story coherence and well-being in adolescence and to examine the possible moderating effects of age, gender, and ethnicity. Ninety European (NZE) and 88 Chinese New Zealanders (NZC) aged between 12 and 21 years were interviewed about a low- and turning-point event as part of a larger study. These narratives were coded from 0-3, using the Theme sub-scale of the Narrative Coherence Coding Scheme (NaCCS; Reese et al., in press): zero indicates no clear theme, three is indicative of a well developed theme that links the narrative to the narrator’s autobiography or self-concept in some way. The narratives were also coded for developmental consequentiality (DC; from 0-3; adapted from Habermas & Diel, 2005): zero indicates no personal change as a result of the event, three indicates that there was personal or developmental change as a consequence of the narrated change. Well-being was measured using standardized questionnaires on depression (Reynolds Adolescent Depression Scale (RADS), Reynolds, 2002) and life satisfaction (Diener, 1985). Age was correlated with both narrative measures, indicating that older participants have more developed life stories. Culture and age were also associated with depression such that NZC and older NZE participants reported more symptoms. NZC participants also reported less satisfaction with life ($t = 3.43, p = 0.001$) than NZE participants. Among NZE (but not NZC) participants, higher scores for theme in the low-point narrative were associated with less satisfaction with life. In contrast, higher levels of DC in narratives of a turning-point were associated with greater life satisfaction for 18-21 year old NZC adolescents.
but poorer life satisfaction for 15-17 NZE and 12-14 NZC adolescents. Being able to derive personally relevant information from a life changing event may help improve well-being for older NZC participants, while retaining a sense of self that is less affected by external events may be associated with greater well-being among younger and NZE adolescents. As this finding is contrary to the observed associations between narrative coherence and well-being in adults, this research further highlights the unique developmental status of adolescents.

**DOES WELL-BEING PREDICT RESILIENCE OVER TIME IN ADOLESCENTS?**

PAUL JOSE

paul.jose@vuw.ac.nz

Resilience as a construct has been studied for several decades (e.g., Peters, Leadbeater, & McMahon, 2010), but the field is not in consensus about whether it can be significantly promoted or enhanced. Early conceptions of resilience gave considerable credence to the idea that resilience is largely genetically determined (Levine & Wood, 2000), but research in the last two decades suggests that psychosocial determinants can be influential in enhancing this critical resource. Fredrickson’s (1998; 2002) broaden-and-build theory argues that individuals can be more resilient in the face of stressful events if they have had a prolonged experience of positive emotions and resources. If Fredrickson is correct, then well-being and positive affect at one point in time should predict increased resilience later. In the present study, we also sought to determine whether well-being/positive affect and resilience might evidence a bi-directional relationship over time, i.e., allow for the possibility that resilience itself might lead to higher well-being/positive affect. Using a large sample of adolescents (N =1774), we conducted a longitudinal assessment (self-report questionnaires) of resilience, well-being (i.e., future orientation, positive relations with others, and confidence), and positive affect. Our design included three measurement occasions, each one year apart. The participants were 10-15 years old at Time 1, and approximated a nationally representative sample for New Zealand youth. All measures achieved at least adequate internal reliability. Three latent variable residualised path analyses were performed. The first analysis verified that resilience and positive affect manifested a bi-directional relationship over time. The second analysis showed that resilience and well-being evidenced a bi-directional relationship over time. But when all three variables were included in a single path model (see Figure 1), we found that positive affect no longer predicted resilience or was predicted by resilience. The measure of well-being seems to share considerable variance with positive affect, and in this case it overshadowed positive affect’s relationship with resilience. As expected, well-being predicted resilience over time. Thus, an adolescent high in well-being at one point in time is likely to report higher levels of resilience one year later. This finding can be taken to support Fredrickson’s hypothesis that an individual who is functioning well at one point in time experiences more flexibility in the face of stressful events at a later point in time. Although resilience reciprocally predicted well-being, that latter relationship was weaker than the former relationship.

**ADOLESCENT SCREEN-TIME AND ATTACHMENT TO PARENTS AND PEERS**

ROSE RICHARDS

rose.richards@otago.ac.nz

Over the last twenty years there has been a marked expansion in screen-based communication and entertainment options available to adolescents. In addition to existing technologies such as television, video and computer games, many adolescents now have access to console games, text messaging, email, online instant messaging and social networking websites. The availability and attractiveness of screen-time activities has provoked excitement at the opportunities afforded by these options, and concern about whether these displace other activities that are important for health and development. One area of interest is how screen-time may impact on the quality of relationships with family and friends. The current study aimed to examine associations between adolescent screen-time and attachment to parents and peers using two cohorts of adolescents, 16 years apart. Study One explored associations between television viewing and attachment to parents and peers in the Dunedin Multidisciplinary Health and Development Study (DMHDS) cohort, who were aged 15 in 1987/8 (n = 976). Study Two examines the association between screen-time and attachment to parents and peers among participants in the Youth Lifestyle Study (YLS) cohort, who were aged 14 and 15 in 2004 (n = 3043). Measures of screen-time in the YLS included television viewing, computer use (not
for homework), playing computer/console games and reading/homework. In both cohorts, low attachment to parents and peers was measured by the Inventory of Parent and Peer attachment. Members of the DMHDS cohort were interviewed as part of a full day of assessment and members of the YLS cohort completed a self-report questionnaire in a supervised classroom setting. The study found that more time spent television viewing and less time reading and doing homework were associated with low parent attachment for both cohorts. Among the YLS cohort, more time playing on a computer was also associated with low parent attachment. Among the DMHDS cohort, greater television viewing was associated with low peer attachment. With the rapid advance of screen-based options for entertainment, communication and education ongoing research is needed to monitor the impact that these technologies have on social development and, in turn, psychological and physical wellbeing among adolescents.

ADOLESCENT RISK-TAKING BEHAVIOURS: EXPLORING BIOLOGICAL AND PSYCHOSOCIAL EXPLANATIONS
HENRY PHARO
henryp@psy.otago.ac.nz

Adolescence can sometimes be a perilous period of development. Although many adolescents are experiencing a peak in their physical health, adolescence is sometimes characterized by a dramatic increase in morbidity and mortality relative to childhood. In fact, the risk of injury or death during adolescence is 2-3 times higher than during childhood. A large part in this increased danger has been attributed to the dramatic increase in the propensity for risky behaviour. Relative to both children and adults, adolescents are more likely to abuse alcohol, use illicit substances, have unprotected sex, commit antisocial acts, and drive recklessly or while intoxicated. Each of these behaviours carries substantial risk in terms of both physical and psychological development. Although not all individuals engage in such behaviours, the majority of adolescents take part occasionally in some form of risky activity. So why do some adolescents take greater risks than others? Some researchers have hypothesized that changes in the adolescent brain related to executive functioning contribute to the incidence of risky behaviour. Others have developed psychosocial models to explain adolescent risk-taking, including the role of sensation seeking as a personality trait that modulates the expression of adolescent risk-taking. In the past few years, we have conducted several experiments to test these hypotheses. For example, in a community sample of adolescents, we found that low performance on a neuropsychological battery designed to assess pre-frontal cortical functioning, and higher levels of risky personality type, were both predictive of individuals’ self-reported involvement in real-life risk-taking behaviours (such as cigarette smoking, drinking alcohol, or driving while intoxicated). We have also investigated several laboratory-based behavioural measures of risk-taking, and their validity as a tool for predicting real-life involvement in risky activities. The findings from our research have important implications for current public policies involving teenagers. For example, our data support the idea that policy makers should consider the data on executive functioning and personality variables when making aged-based policy decisions such as on the legal age to drive, or to purchase alcohol. Furthermore, our results shed some light on ways in which risk-taking behaviour can be better measured in a controlled laboratory setting.
postpartum depression (PPD) is a condition that affects millions of women all over the world. Its prevalence varies largely in different countries, from 3.6% in Germany to 34.7% in South Africa. Brazilian studies show prevalence ranging from 12% to 36.8%. PPD is believed to cause a series of child developmental problems, as well as impairment in mother-infant interaction. In order to assess the prevalence and impact of PPD in infant development, we designed a longitudinal study with Brazilian women who would deliver in the University of São Paulo Teaching Hospital. The Edinburgh Scale was used both at 3 and at 8 months after delivery. In this paper, we intend to discuss some of our findings. Fonseca, Vicente and Bussab will bring data from the assessment of mother-child interaction and child’s attachment at 12 months of age, using both the emotional Availability Scale and the Strange Situation. Although at first sight only maternal ‘structuring’ revealed differences according to maternal depressive status, the authors raise the hypothesis that subtler differences may exist in what concerns child’s attachment behavior. Morais, Lucci and Otta write about the impact PPD seems to have on child’s neuropsychomotor development at 12 months considering maternal depression at 3 and at 8 months after delivery. They found more impairment in infant’s neuropsychomotor development when mothers were depressed at 8 months, concluding that the more recent the depression, the stronger its effect on child’s outcome. Chelini, Otta and Fonseca investigate the effects of maternal PPD on infant’s cortisol levels at birth and at 4 months. Although no correlation was found between maternal depression and levels of infant’s cortisol, neither at birth nor at 4 months, in infants of depressed mothers a negative correlation was found between the stress-related variation of cortisol concentration and the score of maternal interest for the baby immediately after delivery, justifying the hypothesis that mother’s positive disposition may buffer the effect of depressive mood. Fonseca (L) will display the results of a further comparative study between the prevalence rates and some sociodemographic data of the initial sample, made up of lower middle class women delivering in a public hospital, and those of a group of mothers who delivered in a private and upper class hospital. Prevalence rates were three times lower in the latter, indicating the significant role socioeconomic status and social support may have in the genesis of PPD.

the impact of mother’s depressive status on emotional availability and infant’s attachment at 12 months

VERA REGINA J.R.M. FONSECA, CARLA CRISTINE VICENTE, & VERA SÍLVIA BUSSAB
veraregina.fonseca@gmail.com

Postpartum depression (PPD) is a highly prevalent disorder all over the world, and although it may affect mother-infant interaction, this influence is not always a linear one. The present study is part of a larger research project on PPD which has been developed in both the Institute of Psychology of the University of São Paulo and the University of São Paulo Teaching Hospital, Brazil. The aim is to investigate both mother-infant interaction-assessed by the Emotional Availability Scale- and infant attachment at 12 months, according to maternal depressive status. Pregnant women who would deliver in the University Hospital between December 2006 and December 2008 were recruited. Mothers answered the Edinburgh Scale for Postpartum Depression both at third and eighth month after delivery. Those who scored 12 or more have been considered depressed. Thus, three groups were formed: 1- always depressed 2- never depressed and 3- sometimes depressed. Mother-infant dyads have been video recorded at 12 months and their interaction was analyzed according to the Emotional Availability Scale. In order to assess infants’ attachment, Ainsworth’s Strange Situation was also used at this time. Mothers belonging to the always depressed group score lower in structuring their infant’s activities than mothers who were sometime depressed, but not than mothers who were never depressed. Concerning attachment, there was no difference among the groups; however, when considering the 11 subgroups of attachment, being group 1 the more securely attached children and group 11 the more resistant, we found that children from the always depressed group were more represented in the more resistant part of the spectrum than children from the sometime depressed group. Although maternal sensitivity is not strongly affected by maternal depression in our sample, maternal structuring is clearly impaired in such condition. The importance of
such dimension of maternal behavior for developmental outcome will be discussed. On the other hand, being always depressed may interfere in more subtle ways in children’s attachment style. The finding that mothers who were never depressed not necessarily score higher than mothers who were sometime depressed raises interesting questions.

**IMPACT OF MATERNAL DEPRESSION ON NEUROPSYCHOMOTOR DEVELOPMENT OF 12 MONTH OLD INFANTS**

MARIA DE LIMA SALUM E MORAIS, TANIA LUCCI, & EMMA OTTA
salum@saude.sp.gov.br

Studies investigating the effect of postpartum depression (PPD) on infants’ development do not show uniform results, although most of them report some adverse effects on mother-infant’s interaction. PPD mothers display more negative expressions, are less responsive and less spontaneous than non-depressed mothers, and their infants show lower activity levels, fewer expressions of interest, and vocalize less frequently. Not all studies, however, confirm the same adverse effects, and some hypotheses have been put forward to explain why post-partum depression doesn’t influence equally child’s development. Among the most likely are those which attribute the differences to infant’s temperament or resilience, to duration of maternal depression and mother’s compensatory mechanisms. This study investigated the effect of postpartum depression as measured by the Edinburgh Scale (EPDS) on neuropsychomotor development (NPDM) of 12 month old infants. It aimed at assessing the possible effects of the time elapsed between the measure and status of PPD on the infant’s NPDM. The association of DNPM with the results of EPDS applied in the 3rd and 8th month after childbirth was assessed on a sample of women living in a low income area of São Paulo City. Mothers with scores equal or above 12 in the scale were considered depressed. The mother-infant’s dyads were interviewed and observed in order to evaluate the NPDM of the children in the 12th month of life. 25% of the mothers showed signs of depression in the third month after childbirth, while 22.9% presented these signs at the 8th month of child’s life. It was found more impairment in infant’s neuropsychomotor development when considered mother’s depression measured on the eighth month after childbirth: more babies whose mothers were depressed in the third month, compared with those with non-depressed mothers at the same time, had significantly better performance in joining syllables and hitting two cubes, while more children of depressed mother’s at the babies’ eight month had worse performance in supporting mother’s brief absences, looking with curiosity at what matters to their mother, making communicative gestures, start walking with adult’s help and climbing stairs crawling. As our aim was to investigate the 12 month old infant’s NPDM according to the mother’s depressive state, the findings suggest that the effect of maternal recent depressive state is more harmful to the child’s NPDM than that measured around the third month after childbirth.

**MATERNAL BEHAVIOUR MODULATES THE EARLY IMPACT OF POSTPARTUM DEPRESSION ON INFANT CORTISOL LEVELS**

MARIE-ODILE MONIER CHELINI, VERA REGINA J. R. M. FONSECA, & EMMA OTTA
marodie@usp.br

Postpartum depression (PPD) has been associated with disrupted mother-infant interaction and infant attachment, and is believed to cause a variety of child developmental problems, including alterations of the hypothalamic-pituitary-adrenal (HPA) axis function. An elevated maternal reactivity to psychosocial stress already during pregnancy has been showed to be a risk factor for PPD. This finding suggests that the effects of PPD on the child may anticipate depression diagnosis and may possibly be detected in the newborn. Therefore, the aim of this study was to examine if the effects of maternal PPD on the function of the infant HPA axis can already be detected in the newborn and confirmed 4 months later. We hypothesized that newborns from mothers with further diagnosis of post partum depression would present high cortisol levels at birth, would not display the dampened cortisol response commonly observed 3 months later, and that cortisol concentrations of newborns would be negatively associated with the intensity of positive mother/infant interaction. We recorded the interaction between 67 Brazilian women and their newborn during a 10 min period immediately after delivery. We used the Edinburgh Postnatal Depression Scale to assess PPD at 4 months postpartum. Sixteen women (23.8%) met criteria for PPD. We examined the relationship between maternal depression, mother/infant interaction at birth and infant salivary cortisol concentrations at birth and 4 months postpartum. We assessed
the cortisol response of 4-month old infants to a clinical examination. We did not find correlation between quality of mother/newborn interaction at birth and further PPD. As expected, mean cortisol concentration of newborns was higher than baseline at 4 months postpartum independently of mother mood. Neither baseline nor cortisol response to a mild stressor differed between children of women with or without PPD both at 2 days and 4 months of age. However, in infants of depressed mothers but not of non depressed ones, a significant negative correlation was found between the stress-related variation of cortisol concentration and the score of maternal interest for the baby immediately after delivery. A careful analysis showed that a higher interest of mother for baby immediately after birth may buffer the effect of a depressive mood even before the detection of any symptom of PPD. Therefore, treatment approaches based on enhancing mother–infant interactions implanted as soon as the first moments of infant’s life may prevent the deleterious effect of PPD on infant HPA-axis.

**POSTPARTUM DEPRESSION AND ASSOCIATED FACTORS: A COMPARISON OF ITS PREVALENCE IN WOMEN DELIVERING IN TWO HOSPITALS IN SÃO PAULO, BRAZIL**

LUÍZ AUGUSTO MARCONDES FONSECA, & MARIA DE LIMA SALUM E MORAIS
lafonseca@ajato.com.br

Postpartum depression (PPD) is a common condition affecting women all over the world, but its prevalence varies largely in different countries. However, prevalence studies involving distinct populations within countries have rarely, if ever, been made. This study aimed to evaluate the prevalence and associated factors of PPD among women delivering in two hospitals serving two very distinct clienteles, in their socio economical profiles, from São Paulo, Brazil. Standardized questionnaires were applied to women delivering in both a private hospital, serving an upscale clientele, and a public university hospital providing care to a basically lower middle-class population. Information recorded included socio-demographics, type of delivery, prenatal care, birth weight, Apgar score on the 5th minute, and questions about social support. The diagnosis of PPD was made according to a validated scale of Edinburgh. Statistical significance tests of the results were performed when appropriate. Total number of women included on the survey who had an evaluation of their depressive status was 469 (212 in the public hospital and 257 in the private clinic). The overall prevalence of PPD was 27.8% among women in the public hospital, and 8.5% among women in the private hospital (p<0.001). Mean age of women in the public hospital was 25.2 years (6.1 sd) and that of women in the private clinic was 33 years (5.3sd). Almost all women on the private hospital were college graduates, while most women on the public hospital had a high school education. No woman was illiterate. Number of prenatal visits was not different (mean: 7 visits for both groups), as well as mean weight of the newborn and Apgar scores. Cesarean section was the method of delivery for 75% of the women on the private hospital and 32% for the mothers on the public hospital. Total score for characteristics associated with social support was 90 (7.1 sd) for women delivering in the private clinic and 79.3 (15.5 sd) for women delivering in the public hospital (p<.001). Overall the prevalence of PPD was more than thrice in women delivering in a public university hospital than in women delivering in a private hospital serving an upscale clientele. The prevalence of cesarean section was much higher on the private clinic, and social support seems to be the main characteristic associated with PPD.
EDUCATION FOCUS: TEACHERS, MATHS, AND LANGUAGE
DO EARLY MOTIVATIONS AND PERCEPTIONS MAKE A DIFFERENCE FOR BEGINNING TEACHERS’ CAREER TRAJECTORIES?
ANN GUNS, HELEN M.G. WATT, & PAUL W. RICHARDSON (Monash University)
ann.guns@monash.edu

Teacher shortages in Australia and many OECD countries are predicted to increase. Understanding beginning teachers’ motivations and perceptions is important, to determine relationships with career trajectories: teachers, qualified but not teaching, or never qualified. Longitudinal Australian “FIT-Choice” data (www.fitchoice.org) identified motivations and perceptions distinguishing trajectories, and, changing motivations and perceptions for teachers. At entry to teacher education (N=1651), the FIT-Choice scale (Factors Influencing Teaching Choice; Watt & Richardson, 2007), an empirically validated multidimensional measure grounded in expectancy-value theory, measured 12 teaching motivations and 5 perceptions by multiple items rated on 7-point Likert-type scales (Richardson & Watt, 2006). Several years later (2-5 years after scheduled degree completion), surveys assessed career trajectory (supplementing “never qualified” data from university records), as well as current motivations and perceptions for teachers (N=776). 2 MANOVAs compared motivations and perceptions for trajectory groups (teachers N=452; qualified but not teaching N=60; never qualified N=264). Repeated-measures MANOVA explored teachers’ changing motivations and perceptions since beginning teacher education. Initial motivations and perceptions significantly differed according to career trajectories. Those who never qualified differed from teachers on several motivations (ability and intrinsic value were lower, fallback career higher), and perceptions (social status was higher, satisfaction with choice lower). There were few differences between the teachers and qualified but not teaching group; teachers’ perceived social status, and satisfaction with choice were higher. For teachers, since beginning teacher education, motivations of positive prior teaching and learning experiences (T&L) increased, whereas job security, time for family, and work with children/adolescents all decreased. There were also changes in their perceptions: difficulty increased, social status and satisfaction with choice decreased. Distinguishing motivations and perceptions were identifiable for beginning teachers’ different career trajectories; ability and intrinsic value motivations were critical, also highlighted as key drivers within expectancy-value theory. Perceived professional status and initial satisfaction with the choice of a teaching career were also important discriminators. For beginning teachers, increased T&L may indicate this becomes necessary to sustain teachers beyond their early years. Diminishing perceptions of social status and career satisfaction are worrisome, given that they distinguished the 3 career trajectory groups, and may lead to career attrition if unaddressed. Implications relate to recruitment targeting adaptive ability and intrinsic motivations, alongside career choice satisfaction; in-career support to provide positive early career teaching and learning experiences, and enhancing the professional status of the teaching profession.

TRANSITIONAL UNDERSTANDINGS OF EQUIVALENCE
MEGAN ANAKIN, ROS ALLAN, & CHRIS LINSELL (University of Otago)
aman284@student.otago.ac.nz

Documented evidence suggests that a large majority of Year 8 students in New Zealand do not have a strong understanding of equivalence, which is a fundamental prerequisite for learning secondary mathematics. The aim of the present study is to investigate Year 4 (8-9 year old) and Year 8 (12-13 year old) New Zealand students’ understanding of equivalence. In 2009, the University of Otago’s Educational Assessment Research Unit, included mathematics problems focused on equivalence in its National Education Monitoring Project. Representative samples of New Zealand students in Year 4 (n = 421) and Year 8 (n = 403) were given six basic additive missing whole number sentences to complete. Students’ responses were interpreted using considerations of structural awareness. The specific dimensions-of-possible-variation addressed in this study were number of terms, position of missing number, and operators. Overall, 17% of Year 4 students and 65% of Year 8 students responded correctly to 4, 5, or 6 problems and were classified as having a strong understanding of equivalence. The responses were also analysed to examine possible structural thinking. For example, Problem C was □ + 1 = 3 + 2, where a correct response of 4 was given by 24% of Year 4 students and 65% of Year 8 students. However, an incorrect response of 2 was given by 42% of Year 4 students.
and 24% of Year 8 students, suggesting that they computed $2 + 1 = 3$ and may have been combining two numbers, attending to the operators and equals sign but not attending to all numbers in the sentence. Additionally, an incorrect response of 6 was given by 15% of Year 4 students and 5% of Year 8 students, suggesting that they computed $6 = 1 + 3 + 2$. In this case students may have been combining all numbers, attending to the function of operators and equals sign but not attending to the meaning of the location of the operators and equals sign. It appears that for New Zealand students there is a move towards increasingly complex concepts of equivalence over time and that structural thinking becomes more generalised. Within the context of additive missing number sentences involving whole numbers, there was a low proportion (17%) of Year 4 students who were able to demonstrate a strong understanding of equivalence. Despite a larger proportion (65%) of Year 8 students demonstrating a strong understanding of equivalence, it is of great concern that remainder of students in Year 8 do not show mastery in this context.

**MORE OR LESS?: PRESCHOOLER'S NON-SYMBOLIC ARITHMETIC TASK PERFORMANCE DEPENDS ON ARITHMETIC OPERATION AND MODE OF QUESTIONING**

AMY CHAN, MOHAN CHINNAPPAN, JENNIFER FISHER, & AMY MARTIN (University of Wollongong)
amychan@uow.edu.au

Previous research has demonstrated that children as young as 3 ½ years of age can perform simple non-symbolic arithmetic tasks that require judgement on relative numerical quantities. However, recent research also suggests that preschoolers may be more accurate with addition than subtraction in such tasks. In this paper, we report a study that examined if children’s superior task performance with addition might be related to their emerging understanding of the concepts of “more” and “less”. Children aged 3 ½ to 4 years participated in a non-symbolic arithmetic task that required them to observe cookies being visibly added to or subtracted from two equal (but hidden) sets of cookies, in order to judge the relative quantities in the final sets. Trials varied in the type of arithmetic operation (addition vs. subtraction), mode of judgement (“which has more?” vs. “which has less?”) and the extent to which the quantities in the final sets differed (high proportion – ratio of 1:2; vs. low proportion – difference of 1 cookie). We found that children’s task performance was unaffected by the relative proportions in the final sets. Contrary to previous findings, children’s performance in addition trials was not significantly better than that in subtraction trials. However, their task performance in trials involving “more” questioning was significantly more accurate than those involving “less” questioning. Furthermore, we found a significant interaction between arithmetic operation and mode of judgement, suggesting that previous findings that showed preschoolers’ superior performance with non-symbolic addition may need to be interpreted in light of their understanding of “more” and “less” concepts. These findings have implications for enriching young children’s understanding of “more” and “less”, to support the development of foundational concepts that are important for formal mathematical education.

**THIRTEEN-MONTH-OLDS UNDERSTAND THAT LINGUISTIC COMMUNITY CONSTRAINS CONVENTIONALITY**

ANNETTE M. E. HENDERSON (UNIVERSITY OF AUCKLAND) & JESSICA SCOTT (Massey University)
ahenderson@auckland.ac.nz

Words are powerful communicative tools because their meanings are shared by the members of a particular linguistic community. Evidence suggests that infants possess a basic understanding of this fact about language by their second birthday (e.g., Buresh & Woodward, 2007; Henderson & Graham, 2005). This research explores the sophistication of this understanding by investigating whether infants appreciate that word meanings are shared only by individuals from the same linguistic group. In Study 1, 32 13-month-olds (mean age = 12 months 26 days) watched two actors singing nursery rhymes in alternation. One actor sang French nursery rhymes and the other sang English nursery rhymes. Infants then participated in a visual habituation paradigm in which they were repeatedly shown an event in which the French actor provided a novel label (i.e., “medo”) while holding one of two novel objects. After habituation, infants watched six test trials in which an actor produced the same label while holding either the same object (target trials), or a different object (distractor trials). Infants in the same actor condition saw the French actor throughout the session. Infants in the different actor condition saw the French actor during habituation and the English actor during test. If infants expect
words to be used consistently across speakers regardless of linguistic group, infants in both conditions should look longer on the distractor test trials. Infants in the same actor condition looked longer on the distractor trials than they did on the target trials, $t(17) = 2.87, p = .01$. Infants in the different actor condition did not look reliably longer to either type of trial, $t(17) < 1$. Thus, 13-month-olds do not expect word-referent links to be consistent across speakers from different linguistic communities. In Study 2 another 18 13-month-olds (mean age = 13 months, 0 days) watched the English actor during habituation and the French actor during test. Infants did not look reliably longer to either type of test trial, $t(17) < 1$. Thus, infants do not assume that a word-object link provided by a member of their own linguistic group would be shared by an individual from a different linguistic group. These findings suggest that 13-month-olds appreciate that word meanings are specific to linguistic communities. Understanding the role that linguistic group plays in the shared nature of words represents a fairly sophisticated understanding of language as a conventional system.
CASE STUDIES & INTERVENTIONS

BALANCE SKILLS IN A THREE YEAR OLD GIRL WITH HYPOSTONIA AND HYPERLAXITY - IS IT DOMAIN-SPECIFIC OR NOT?

BILLIE SEARING & MIYAHARA MOTOHIDE (University of Otago)
seabi044@student.otago.ac.nz

It is not well known whether the effect of balance training is domain-specific or not. This single case study examined the effect of domain-specific balance training in a three year old girl diagnosed with hypotonia and hyperlaxity. An eight week balance intervention was conducted on a cross over structure: four weeks focused on static balance and four weeks of dynamic balance. The ninth week was dedicated to assessment. The static and dynamic balance was assessed with the corresponding subtests from the Movement Assessment Battery for Children - Second Edition (Henderson, Sugden & Barnett, 2007) at Week 0, Week 4 and Week 9. Throughout the intervention period, the images of animals (e.g., giraffe, butterflies, frogs, kangaroos, elephants, snakes) were used to make the balance exercises meaningful for the child. The images of animals were used as a pedagogical tool to keep the interest of the child and to create a point of reference for the child and the researcher to talk about, being something that the child would understand. Unexpectedly, dynamic balance improved, but static balance did not at Week 4. At Week 7, because progress was not yet made in static balance, a picture of a flamingo was pinned on the wall for her to focus on, while standing on one leg. At Week 9, both static and dynamic balance had improved from Week 4. The effect of balance training was not necessarily domain-specific. Perhaps the distinction between static and dynamic balance is rather arbitrary and at least some balance elements may be shared between domains. The use of imagery of animals would be effective for physical activity with pre-school children.

COGNITIVE BEHAVIOURAL GROUP THERAPY FOR MANAGING PERI-MENOPAUSAL SYMPTOMS: FEASIBILITY AND EFFECTIVENESS OF DIFFERENT METHODS OF DELIVERY

BONNIE IP, ROSEMARY WEBSTER, & MARTIN P. JOHNSON (University of Newcastle)
c3069067@uon.edu.au

Menopause transition is no longer considered only as a biological process, but should also be understood in a psychological and social context. The increased understanding of the role of behaviours, mood and cognition associated with menopause has resulted in the development of psychological interventions to treat menopausal symptoms. The current project is a pilot study aimed to evaluate the feasibility and effectiveness of two delivery formats [(1) Weekly – (ten 1.5-hour weekly sessions), and (2) Weekend – (two 7.5-hour sessions)] of a Cognitive Behavioural Group Therapy (CBGT) program for managing peri-menopausal symptoms. The Menopause Made Manageable (MMM) CBGT program has incorporated many well-established cognitive/behavioural strategies including psychoeducation, relaxation, mindfulness, lifestyle intervention, cognitive strategies and stress management. Participants were allocated to the Weekly (N=51) or Weekend (N=22) group according to their preference. A battery of standardised questionnaires (Menopause Rating Scale, Depression Anxiety Stress Scales and SF-36) were administered at waitlist (6-8 weeks before treatment), pre-treatment, post-treatment, 3-month Follow-up and 6-month follow-up. Participants were also asked to complete a Symptoms Diary every day during the program to monitor their menopausal symptoms. Changes in mean scores over five assessment time points and between two groups were evaluated using a Linear Mixed Model. The results indicated that both Weekly and Weekend MMM program were effective in improving menopause-related symptoms (effect size, d = 0.66-0.86) and psychological symptoms (effect size, d = 0.22-0.43). There were significant time main effects found in Symptoms Diary, suggesting menopausal symptoms improved over the course of treatment. There was no significant difference across two treatment delivery formats. The treatment gains were maintained at 3-month and 6-month follow-up. The result of this study suggested that CBGT is an effective and feasible, non-pharmacological treatment alternative for menopausal symptoms. Since both Weekly and Weekend groups showed similar results, the MMM program could be delivered in either formats to suit clients’ needs and preference.
CHILDHOOD HORMONES AND MATURITY: DOES MIS SLOW MATURATION IN BOYS?

KIRSTIE MORGAN, NICOLA A. DENNIS, TED RUFFMAN, DAVID K. BILKEY, & IAN S. MCLENNAN (University of Otago)
kmorgan@psy.otago.ac.nz

Boys mature at a slower rate than girls. This slower maturation rate is evident in physical brain development, the onset of puberty, and performance on a range of behaviour and cognitive tasks that are thought to assess maturity. Because boys are slower to mature both physically and cognitively, this suggests that a male-specific biological factor could be slowing male maturation rates during childhood. An obvious male-specific factor is testosterone. Testosterone, however, cannot be the primary factor because from 1-year of age until puberty, testosterone is virtually absent in boys and both girls and boys have similar trace levels. Another candidate is Müllerian Inhibiting Substance (MIS). Like testosterone, MIS is a hormone that is secreted by the testes early in gestation and plays a seminal role in the ontogeny of the male reproductive system. Unlike testosterone, however, MIS levels in boys remain high until puberty. Because MIS levels also vary considerably between boys, MIS may not only explain some of the sex differences observed between boys and girls, but also some of the variation in maturation rates within boys. In the present study we investigated whether variation in levels of MIS in 5- and 6-year-old boys’ blood correlated with physical development. 103 boys had their height and weight using standard pediatric procedures. Blood samples were collected at the Southern Community Laboratories Ltd and later assayed for MIS levels. Our findings revealed a significant negative correlation between levels of MIS and height. In other words, boys with higher levels of MIS were shorter than boys with lower levels of MIS. This finding provides the first evidence that MIS may moderate the maturational development of boys during childhood. Given that a child’s rate of maturation impacts on his or her schooling as well as his or her social interactions, our finding that MIS may slow development has implications for understanding the general development of boys. In addition, our finding may also contribute to our understanding of developmental disorders that have a significant male bias, such as autism (fast maturation) and ADHD (slow maturation).

USING VIDEO-MODELLING TO ENHANCE PEER INTERACTIONS

VANESSA GREEN, JEFF SIGAFOOS, HEATHER DRYSDALE, & TANYA BOELEMA (Victoria University of Wellington)
vanessa.green@vuw.ac.nz

Interacting successfully with peers is a critical skill for young children to acquire in order to avoid peer neglect, rejection and bullying. Video-modelling is a highly effective intervention strategy for teaching a range of social skills to children with developmental disabilities, however as a tool it has not had extensive use within the general population for those children with social skills difficulties. The aim of the study was to enhance peer interactions of children with social skills difficulties though the use of video-modelling. In particular, we asked “can children with social skills difficulties learn to initiate and maintain social interactions with individual peers or groups of peers after watching an instructional video?” A single-case multiple baseline design intervention study with four participants aged 3-4 years conducted. The initial assessment included the use of the Vineland-II Adaptive Behavior Scales (Sparrow, Cicchetti & Balla, 2006), and the Social Skills Rating Scales (Gresham & Elliott, 1990). Social validity data was collected to determine the specific nature/content/frequency of age appropriate peer interactions. This was followed by the creation of in-class video vignettes with peers. Children were observed during free-play within a kindergarten setting. The dependent variables included amount of time spent engaged in appropriate social interactions with peers, number of aggressive acts and frequency of positive peer group entry attempts. Once baseline had been established the intervention involved inviting each child to watch a video vignette (2 mins) of their peers engaged in positive peer interactions with one and two other children. This occurred up to four times per week. The results showed an increase in the amount of positive social peer interaction for all three children. The number of aggressive behaviours decreased and the number of peer group entry attempts increased. Follow-up data was collected for two of the children and showed that the positive gains were maintained. (The fourth child left the study as he turned 5 during the first intervention phase). To ensure the social validity of the Video Modelling programme a parent and teacher evaluation was conducted and revealed very positive results with regard to the maintenance of positive social behaviour and generalization to other settings. This study demonstrates the effective use of video-modelling for young children with social skills difficulties. The success of the programme after approximately 30 minutes of intervention suggests that this approach may be a useful early intervention tool for those children who lack social skills.
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NEURODEVELOPMENTAL PERSPECTIVES ON ADHD: IMPLICATIONS FOR THE DEVELOPMENT OF MORE ENDURING INTERVENTIONS

ABSTRACT
Attention-deficit/Hyperactivity Disorder (ADHD) is a prevalent, chronic, and oftentimes highly-impairing disorder that emerges early in childhood and persists into adulthood for a substantial number of afflicted individuals. This presentation will initially review data and models that have formed the conceptual framework for much of the current thinking regarding the neural bases of ADHD. Notably, most of these models are static in nature in that they do not incorporate or account for the substantial age-related changes that are characteristic of this disorder. Subsequently, a novel neurodevelopmental perspective on the neural substrates of ADHD as it evolves over the lifespan will be presented, along with clinical, neuropsychological and neuroimaging data from longitudinal studies to support this model. This model posits that distinct neural/neurocognitive systems are involved in the etiology/emergence and course/trajectory of ADHD across the lifespan. Finally, implications of the model for the development of new approaches to treatment for ADHD will be discussed. In particular, the conceptualization and development of TEAMS (Training Executive, Attention, and Motor Skills), a novel early intervention/prevention program for preschool children with ADHD will be presented. TEAMS is based on compelling data which indicate that certain environmental manipulations can impact brain growth and development, which in turn may have a lasting effect on the severity of ADHD. Preliminary data supporting the palatability and efficacy of TEAMS will be presented along with new directions for research on the development of preventive interventions for neurodevelopmental disorders.

BIOGRAPHICAL SKETCH
Dr. Jeffrey Halperin received his Ph.D. in Psychology from the Graduate Center of the City University of New York in 1979. After serving as a Research Associate at the New York State Psychiatric Institute for 3 years, he accepted a faculty position in the Department of Psychiatry at the Mount Sinai School of Medicine, where he served as the Director of Child Psychology from 1984 – 1989. While maintaining a part-time affiliation with Mount Sinai, in 1989 Dr. Halperin accepted a full-time position in the Department of Psychology at Queens College. Currently, he is a Distinguished Professor of Psychology at Queens College and the Graduate Center of the City University of New York, and is Acting Program Head of the Neuropsychology Doctoral Program. For nearly three decades Dr. Halperin has been conducting research examining diagnostic and treatment issues, as well as neural functioning, in children with attention-deficit/hyperactivity disorder (ADHD) and other disruptive behavior disorders. Through the use of clinical, neuropsychological and neurobiological measures, he has examined the ways in which neural and environmental factors come together to influence the emergence and trajectory of children with ADHD across the lifespan. He has been leading two large longitudinal studies which follow individuals prospectively over time to examine predictors of course and outcome among children with ADHD; one of these studies is focused on the transition from preschool to the school-age years and the other on the transition from childhood to adulthood. Within this latter study he has been employing neuroimaging procedures to examine differences in brain function between those whose ADHD symptoms do and do not persist into adulthood. Most recently, he has been working on the development of novel non-medication interventions for preschoolers at risk for ADHD with the hope of preventing or diminishing the severity of later behavioral and cognitive difficulties.
KEY ISSUES IN THE DIAGNOSIS OF ADHD

JAN PIEK (Curtin University)

j.piek@curtin.edu.au

Although prevalence estimates vary considerably, it is thought that around 3-10% of school age children have Attention Deficit Hyperactivity Disorder (ADHD). This is characterised by symptoms of inattention and/or hyperactivity/impulsivity which are present in two or more settings. Diagnosis is generally based on a combination of questionnaires and/or interviews which identify symptoms of inattention, hyperactivity or impulsivity as described in the DSM-IV or ICD-10. However, diagnosis is controversial as there are many difficulties associated with determining a behavioural disorder. Many diagnostic tools utilise the DSM-IV criteria to identify ADHD. The first presentation by Dr Neilson Martin outlines some of these measures and describes their suitability for the identification of ADHD symptoms. Dr Martin also discusses the issue of multiple raters, in particular the discrepancies observed when both teachers and parents are asked to describe the same child's behaviour. A particular concern in relation to the symptoms described by the DSM and ICD is their suitability for different cultures. Can Australian Aboriginal children be diagnosed with ADHD using the same tools/approach as used in the mainstream population? Dr Pek Ru Loh examines the Australian Aboriginal perspective of ADHD through interview and focus groups, and discusses the need for a more culturally appropriate approach to diagnosis. One alternative approach that may be more culturally sensitive is based on research that has identified response inhibition as a primary deficit in ADHD. Associate Professor David Livesey examines such an approach in children aged 4-6 years using a Stop-Signal Task (SST). This tool appears to be a valid measure of response inhibition in young children and is associated with greater impulsivity. A final issue in relation to the diagnosis of ADHD is comorbidity and identifying which symptoms or characteristics are related to which disorder. Although comorbidity has been extensively examined in relation to ADHD, one disorder that has not been examined as extensively is Developmental Coordination Disorder (DCD). Dr Pearsall-Jones investigates this comorbidity in relation to aetiology and outcomes such as internalising disorders, in particular anxiety and depression. Dr Pearsall-Jones uses a unique approach by investigating monozygotic twins who are either concordant or discordant for ADHD and/or DCD.

THE SWAN AS A MEASURE OF ADHD

NEILSON MARTIN

N.Martin@curtin.edu.au

The SWAN is a reasonably new scale used for measuring ADHD. It is similar to many other pen and paper questionnaires in that it is written around the diagnostic items contained in DSM-IV. However, it is very different from most other scales in that instead of focusing solely on deficits or problem behaviour, it also measures what would be perceived as capabilities above average. Research has been conducted to validate its use and compare its utility against several more established measures. It has also been translated into French and been shown to be just as effective. Work has been done, by this group and others, to compare the SWAN to several other measures including the SDQ, SSRS and Conners which are amongst the most popular in use at the moment. There has also been work to compare results when the same measure is used by different raters (e.g. parents vs teachers) and some preliminary work has been done to compare the SWAN to computerised tests. This presentation will summarise the findings of the use of the SWAN, its comparisons to other measures, and then go on to discuss its possible suitability for use in non-Western populations.
ADHD: AN AUSTRALIAN ABORIGINAL PERSPECTIVE

PEK RU LOH
p.loh@curtin.edu.au

This qualitative study explores the Australian Aboriginal explanations/beliefs system surrounding Attention Deficit Hyperactivity Deficit (ADHD) and their management of the ADHD symptoms within their community. The entire research process was overseen by an Aboriginal Reference Group. Participants were recruited from a metropolitan Aboriginal community and they comprised of (1) Aboriginal community members; (2) Aboriginal mental health and education professionals; and (3) Aboriginal parents of children with ADHD. All participants were parents or grandparents. An audio-tape recorded semi-structured interview was conducted either with the individual participant or in a group of no more than 4 participants. Interview data were analysed via Nvivo 8. Preliminary results suggest that most Aboriginal parents accepted the biomedical model of ADHD and viewed a high level of hyperactivity as impairing on the child’s functioning and having an adverse impact on the family. Moreover, most Aboriginal parents viewed the hyperactivity behaviour as problem behaviour but not the inattentive behaviour. Most parents attributed the causality mainly to dietary and lifestyle changes, with some others attributing causality to psychological and learning difficulties. Aboriginal parents were also more tolerant and accepting of the hyperactive behaviour seen in children and would only seek medical treatment for the child as a last option. Most participants believe that a more culturally appropriate approach, such as allowing an Aboriginal child with ADHD to have contact with the bush, is the more appropriate way of managing ADHD.

ADHD AND EXECUTIVE FUNCTIONS: DETECTING RESPONSE INHIBITION DEFICITS

David Livesey
david.livesey@sydney.edu.au

Barkley (1997) proposed that response inhibition (RI) is the primary deficit in ADHD. This proposal has been supported by subsequent evidence including recent work by Boonstra et al (2010) who found that ADHD adults performed more poorly than controls on measures of both inhibition of a prepotent response and interference control. The Stop-Signal Task (SST) is the most direct measure of the former while Stroop tasks are widely used to measure interference control. Following a study examining SST performance by adults diagnosed with ADHD in which we found that ADHD was associated with poorer RI, a SST appropriate for use with young children was developed and used in a series of studies with non-clinical samples of children aged between 4- and 6-years. These indicate that the SST is appropriate for this age group and that there is improvement in performance with age across this range, with improvements in both Go- and Stop-signal reaction time (SSRT). The relationship between SST performance and performance on a number of measures thought to be associated with RI was examined. These measures included interference control (Stroop), working memory (count and label), externalizing behaviour (RBRI) and impulsivity (TRIS) and also included a measure of motor ability (MABC). Longer SSRT was found to be associated with greater impulsivity, poorer interference control (dependent upon the version of Stroop used) and poorer working memory but not with externalizing score nor motor performance. A significant relationship between fine motor performance and Go-RT was found. Better interference control was found to be associated with lower externalizing scores, better working memory and better fine motor performance. These findings indicate that the SST appears to be a valid measure of RI (specifically inhibition of a prepotent response) and hence likely to be a useful tool in identifying those with ADHD. However, the finding of a significant correlation between SSRT and working memory indicates that the SST currently in use (involving a choice reaction time measure) may not be as ‘pure’ a measure of RI as was thought and that, at least for children, a SST with reduced working memory load may improve upon this. A SST employing a simple reaction time measure has been included in an ongoing study and these results will also be discussed.
Attention Deficit Hyperactivity Disorder (ADHD) and Developmental Coordination Disorder (DCD), two of the most common developmental disorders of childhood, have been found to overlap in as many as 50% of instances. Anxious and depressive symptomatology have also been associated with both disorders. Some researchers have proposed an association between these disorders and Atypical Brain Development (ABD). They argued that ABD causes both disorders, and concluded that shared aetiology is the reason that developmental disorders so frequently co-occur. Similarly, it has been argued that a link between these developmental disorders, and disorders of mood and affect, is due to shared aetiology. In a study of monozygotic twins concordant and discordant for ADHD and DCD it was proposed that developmental ADHD and DCD have different aetiologies. Causal pathways associated with DCD have been associated with cerebral palsy (CP), suggesting that DCD and CP fall on a continuum of motor deficits. In twins discordant for attention and movement deficits, depressive symptomatology was higher in twins with attention and movement deficits than in their co-twins without. This suggested that depressive symptomatology in these twins resulted from having attention and movement disorders, rather than being genetic in origin. These findings collectively provide a compelling argument for environmental factors in the aetiology of movement but not attention disorders, and as an explanation for depressive symptomatology in twins with these disorders. This highlights the importance of using valid measures for identifying developmental disorders, and of the need for assessment of mood and affect in children with developmental disorders.
HOW FAMILY AND CULTURE INFLUENCE EARLY THEORY OF MIND DEVELOPMENT

VIRGINIA SLAUGHTER (University of Queensland)
vps@psy.uq.edu.au

For the last two decades, researchers have debated the question of how children come to represent and reason about invisible, internal mental states. One view is that mental state concepts of belief, desire and emotion are hard-wired into the human brain, and as such, the acquisition of these concepts and the words to express them, occurs via the maturation of a neurobiological mindreading module (e.g., Leslie & Thaiss, 1992). This view accommodates the fact that the vast majority of typically-developing children acquire the concept of false belief between the ages of 3 and 5 (Wellman, Cross & Watson, 2001), as well as providing an explanation for the apparent lack of false belief understanding in some groups of children, namely, those with autism. An alternative perspective is that children construct internal mental state concepts and relate them to observable behaviour, guided by their everyday social and conversational experiences (Astington, 2001). This second view assumes that (a) individual differences in such experiences will correlate closely with children's acquisition of mental state concepts and terms and (b) differences in socialization practices across cultures will produce variations in children's theory of mind development by cultural group. The papers in this symposium support the second view. The first three papers offer new data demonstrating that maternal conversational input, parenting styles and broader socialization practices significantly influence children's mastery of mental state concepts and vocabulary. The final paper offers a theoretical model for how children learn about mental states.

MATERNAL MENTAL STATE TALK AND CHILDREN'S SOCIAL UNDERSTANDING: THE ROLE OF THE SELF-CONCEPT

CHRIS PERKINS
chris@psy.otago.ac.nz

How do children learn what mental states (e.g., desires, emotions and cognitions) are? There is a nature versus nurture debate in the theory-of-mind literature as to whether children are born with an innate understanding of mental states, or whether they learn what mental states are during the first few years of life. In support of learning theory there is now compelling evidence that mothers' tendencies to comment on people's mental states during mother-child conversations is related to children's acquisition of basic mental state concepts. The specific type of mother mental state talk that is most helpful for children's understanding of mental states differs depending on the age of the child, and this may be reflective of underlying cognitive developments that allow for advancements in understanding. We have recently completed a longitudinal study to assess the role of children's self-concept in the relation between mother mental state talk and children's later social understanding as measured by their use of mental state vocabulary. At all three time points (21, 27 and 34 months), mothers (N = 70) described pictures to children and mother talk was coded for mental state content and referent. Children's self-concept was measured using the classic rouge task, use of the term 'mine' and use of second person pronouns. Results indicated that at Time 1 mothers' 'genuine' references to children's desires at 21-months predicted unique variance in children's subsequent acquisition of mental state vocabulary at 27 months, but this effect was exclusive to children who did not demonstrate a basic 'self-concept' as measured by their mirror self-recognition and use of the term 'mine' at the earlier time point. In contrast mother talk about her own thoughts and knowledge at 27-months predicted unique variance in children's subsequent acquisition of mental state vocabulary at 34 months, but this effect was greater for those children whose self-concept was present but not yet firmly in place as measured by their use of first person but not second person pronouns. Working within a social-constructivist framework and drawing upon Vygotsky's principle of a zone-of-proximal-development I argue that the specific type of maternal mental state talk that is most likely to facilitate advancements in children's social understanding changes over time and depends on 1) the child's current level of social understanding and 2) the child's understanding of the distinction between self and other.
FINDING THEIR WINGS: YOUNG CHILDREN’S MENTAL STATE UNDERSTANDING IN A PACIFIC ISLAND NEW ZEALAND COMMUNITY

MELE TAUMOEPEAU & ELAINE REESE
mele@psy.otago.ac.nz

It is now well documented that parent-child conversations about mental states contribute to children’s mental state understanding. Less is known however, about the role these conversations play in non-Western social groups. This study examines the relative importance of parent-child conversations about mental states in families who identify as Pacific. Rich social networks in Pacific Island families and emphasis on more authoritarian child-rearing practices raise the possibility of differences in the mentalistic socialisation of children when compared to Western social groups. To address this question we examine (1) the frequency of mental state conversations between Pacific caregivers and their very young children and (2) the magnitude of the relation between Pacific children’s sociocognitive development and the presence of siblings and extended family. We assessed 45 families living in New Zealand who identified with a Pacific Island culture. Two principal caregivers per family were selected to participate in conversations with their child during wordless picture book and free-play tasks. Children and their caregivers were tested at 15, 20, 26 and 33 months. A battery of social understanding tasks including perspective taking, agency, deception and emotion recognition were administered as a measure of children’s developing social cognition. In addition, caregivers were asked to report on children’s mental state language at all timepoints, as well as rate their own level of cultural orientation using the General Ethnicity Questionnaire (Tsai, Ying, & Lee, 2000). Mother-child conversations during the wordless picture book task were coded for mental state language. Preliminary findings for the 15 month time point show that mothers high in Pacific orientation used significantly less child-directed desire terms, $t(43) = 2.50, p<.01$, and that the number of older siblings, $\beta = .40, t = 3.06, p < .01$, rather than mental state talk, $\beta = .02, t = .14, n.s$, accounted for variance in children’s SU task performance at 26 months, over and above the effect of language levels and SES. Further analyses will be conducted to examine the role of siblings in later development of SU, the developmental trajectory of parent-child references to mental states and the differences between mothers’ and fathers’ mental state conversations. We discuss the evidence for more distributed effects in cultures for which there are rich social networks. In particular we consider how parental talk about mental states might be moderated by social norms and cultural perceptions of the parent-child relationship.

CULTURAL INFLUENCES ON THE ACQUISITION OF THEORY OF MIND CONCEPTS

AMENEH SHAHAEI, VIRGINIA SLAUGHTER, CANDIDA PETERSON, & HENRY WELLMAN
a.shahaeian@psy.uq.edu.au

With the acquisition of a theory of mind (ToM), children come to understand people’s behaviour as the product of their internal, subjective mental states including desire, emotion and belief. Although there is little cross-cultural variation in children’s acquisition of the key ToM concept of false belief (Wellman, Cross and Watson, 2001), recent research suggests that there may be differences in the acquisition of other ToM concepts. For instance, Wellman et al (2006) observed that preschoolers in China and the US differed significantly in the rates at which they mastered the concepts of knowledge access (people who perceive an event will know about it) versus belief diversity (different people have different ideas and opinions about the same thing). Specifically, Chinese children mastered knowledge access prior to belief diversity, and American children acquired those concepts in the reverse order. One hypothesis is that cross-cultural variations in socialization practices draw certain mental state concepts to children’s attention before other ones. The USA, like Australia, is an individualist culture where children are encouraged to think for themselves, express opinions freely and to value creative new ideas as well as traditional wisdom. China, by contrast, is a collectivist culture where parents emphasize respect and acquisition of conventional wisdom and traditions. These different approaches to childrearing may direct American children to It is conceivable that this style of childrearing leads American children to form their initial conceptualizations of mind in terms of differences of opinion, and lead Chinese preschoolers relatively early to the insight that people can be knowledgeable versus ignorant. In the current study, we performed a new cross-cultural comparison involving 77 Australian and 58 Iranian 3-to 6-year-olds. Since Iranian culture embraces collectivist cultural traditions, we predicted that Iranian children would show the same
sequence of ToM concept development as previously observed in China. All children in this study were tested on the 5-step ToM scale (Wellman & Liu, 2004). We found that culture affected the sequencing, but not the overall mastery of ToM concepts. Specifically, Iranian children mastered the concept of knowledge access prior to that of belief diversity. Although further research is required, we propose that in collectivist, as opposed to individualist, cultures, children are socialized relatively early to understand how people acquire beliefs, but they take more time to recognize that people may have completely different beliefs about the same reality.

**HOW STATISTICAL LEARNING, MOTHER INPUT, AND CHILD LANGUAGE MIGHT HELP CHILDREN TO LEARN ABOUT MENTAL STATES**

TED RUFFMAN, MELE TAUMOEPEAU, & CHRIS PERKINS
tedr@psy.otago.ac.nz

Nativists sometimes claim that they believe in learning but that learning is “hard” (Leslie et al, 2004). Leslie (1987) claimed that it is “hard to see how perceptual evidence could ever force an adult, let alone a young child, to invent the idea of unobservable mental states”, and that, “the meaning of relevant linguistic expressions could not be grasped without first understanding the concept”. In contrast, we review research to argue that infants begin with an implicit understanding of behaviours assisted by their statistical learning abilities, and evolve an explicit understanding of mental states through mother input and developing language.

First, we describe some classic paradigms argued to tap theory of mind (ToM) understanding in infants – goal-directed behaviour and imitation – and re-interpret these as demonstrating an understanding of behaviour.

Second, we argue that statistical learning abilities are innate, domain-general, and allow infants to learn patterns even when sleeping and to develop prototypes after only brief exposure to a stimulus. Infants’ statistical learning abilities, in combination with an attention to faces and human motion, assist ToM development. Third, we argue that mothers, consciously or unconsciously, structure input for children along Vygotskian lines, pitching talk about mental states at a level slightly ahead of the child’s current level. Mothers talk first about children’s current desires (which are “observable” to the child, and ideal because children have a salient internal experience to map onto), then later about others’ thoughts and knowledge. Mothers also use terms in multiple situations, for instance, when someone reaches for a rabbit (“She likes it”), or cries in the presence of a rabbit (“She doesn’t like it”). This compels children to understand that the term refers to an underlying mental state since the behaviour described is so different. Fourth, we argue that children’s initial ToM consists of implicit knowledge about behaviours but that this evolves to become an explicit understanding of mental states with gradual exposure to different mental state terms in different contexts, thereby deepening children’s understanding. Furthermore, children’s general non-mental state language is also important. When hearing, “You want to get down?”, knowledge that “you” refers to themselves and what it means to “get down”, will make “want” more intelligible. Finally, we argue that statistical learning is impaired in autism, and this may account for such individuals’ language and ToM difficulties rather than an innate deficit in ToM knowledge.
HEALTH AND NEONATES

MOTHERS OF VERY PRETERM INFANTS IN THE NEONATAL INTENSIVE CARE UNIT: FACTORS ASSOCIATED WITH MATERNAL STRESS

ARGENE MONTGOMERY-HONGER, VERENA PRITCHARD, ALESSANDRA RAUDINO, & LIANNE WOODWARD
(University of Canterbury)
argene.montgomery-honger@pg.canterbury.ac.nz

Many mothers experience high levels of stress after giving birth to a very preterm (VPT) infant admitted to the neonatal intensive care unit (NICU). Few studies, however, have investigated sources and antecedents of maternal stress in the NICU, and none have considered the extent to which factors external to the NICU environment may also contribute towards mothers’ overall perceived stress. Aims: 1) To describe sources of stress in the NICU environment for mothers of VPT infants; 2) to identify associations between maternal stress and a range of infant clinical, maternal mental health and socio-familial factors; and 3) to identify outside sources of stress for mothers of VPT babies in the NICU. As part of a longitudinal study, a regional cohort of 133 mothers of VPT infants (<33 weeks) admitted to a level III NICU were interviewed when their infants reached term equivalent age. The Parental Stressors Scale: NICU was used to determine sources and overall perceived level of stress in the NICU. As part of a preliminary pilot study, an additional sample of mothers of VPT infants admitted to a level III NICU (n=9) were asked to rate the degree of stress associated with external factors relating to finance, transportation, childcare and work. Over 75% of mothers perceived the NICU as being moderately to extremely stressful. A range of factors were associated with increasing maternal stress. These factors spanned infant clinical, maternal mental health and socio-familial factors and included infants born extremely low birth weight (p=.01), number of days infant spent on ventilator (p=.02), maternal depression scores on the Edinburgh Postnatal Depression Scale (p=.013), total number of stressful life events over the past year (p=.007), lack of confidence as reported on the Mother and Baby Scale (p=.018) and family income <$40,000 a year (p=.05). Key external stressors identified by families included in order of stressfulness: “planning my day to fit in with NICU visiting hours/routines”; “fitting in everything else I need to do”; “travelling to and from the NICU”; “finding a car park”; and “organising my own food for when in at the hospital”. Findings emphasize the need for increased awareness of both NICU-specific and NICU-external factors contributing to maternal stress in the NICU. Identifying those mothers most at risk and putting appropriate interventions in place will be important to support parents and families during their NICU stay and may help to minimise any adverse impacts on maternal and infant functioning longer term.

STRESS, COPING, AND RESILIENCE IN THE TRANSITION TO PARENTHOOD: FINDINGS ON WOMEN COPING WITH COMPLICATIONS OF PREGNANCY

CAROL CORNSWEET BARBER & NICOLA STARKEY (University of Waikato)
ccbarber@waikato.ac.nz

A growing body of animal (e.g., Maccari, Darnaudery, Moreley-Flecher, Zuena, Cinque & Van Reth, 2003) and human (e.g., Davis, Glynn, Waffarn & Sandman, 2011) research has shown that maternal stress and anxiety during prenatal development can have short and long-term implications for physical, cognitive, and emotional development in offspring. Although depression, both postnatal and prenatal, is more often studied, these findings on stress and anxiety have spurred increased interest in understanding and addressing a variety of kinds of distress during pregnancy. The current research emerged from consultation with the antenatal unit at Waikato Hospital, and the recognition that women experiencing serious complications of pregnancy struggle with significant stress and distress, and cope with it in a variety of ways, adaptive and maladaptive. This study aims to describe the experiences of women hospitalized during pregnancy (n=117), as well as a comparison group of pregnant women from community sources such as antenatal classes, ultrasound clinics, and midwifery practices (n = 115). Participants completed questionnaire measures of distress (anxiety, depression, perceived stress), life events, health behaviors, relationship quality, coping style, optimism, and quality of life. Data for the study have been collected and entered, and the initial stages of multivariate data analysis are currently under way. This presentation will focus on hypotheses about the relationships among optimism, coping, stress and distress. It is hypothesized that women who are hospitalized will experience more distress and perceived stress than women in the community, but that there will be considerable variability in both groups. It is expected
that individual psychological resources such as optimism and coping self-efficacy will moderate the relationship between stress and distress. In addition, it is expected that psychosocial resources such as partnership, relationship support, income, and education will also moderate between stressful life events and individual experiences of distress. Implications for further research and for intervention and advocacy with women and families will be explored.

PRESCHOOL MENTAL HEALTH OUTCOMES OF CHILDREN PRENATALLY EXPOSED TO METHADONE: THE ROLE OF OUT OF HOME CARE

RACHEL LEAN (University of Canterbury), V. E. PRITCHARD (University of Canterbury), L. J. WOODWARD (University of Canterbury), & S. MOOR (University of Otago, Christchurch School of Medicine) rachel.lean@pg.canterbury.ac.nz

Children born to substance dependent mothers treated with methadone maintenance therapy (MMT) during pregnancy represent a very high risk group. However, little is known about the pathways to risk for these children. This study describes the emotional and behavioural adjustment outcomes of children born to mothers enrolled in MMT during pregnancy at age 4.5 years. Of particular interest was the extent and impact of out of home care placements on child outcome. The study sample consisted of 53 children born to MMT mothers who were assessed at age 4.5-years alongside 54 randomly selected non-exposed children. Data on maternal socio-familial and infant clinical characteristics were collected at term. Details about Child Youth and Family (CYF) contacts and out of home placements were collected from birth to 4.5-years. At 4.5-years, caregivers completed the Strengths and Difficulties Questionnaire (SDQ) and were interviewed about their child's mental health using the Developmental and Well-Being Assessment (DAWBA). Children in the ME group were characterised by higher levels of emotional, hyperactive/inattention, conduct and peer problems on the SDQ (ps < .01). The DAWBA also revealed that ME children were more likely to fall within the probable clinical range for ADHD (15% vs. 1.9%, p = .02), oppositional defiant disorder (32% vs. 0%, p < .00), and conduct disorder (17% vs. 0%, p = .01). Examination of children's contact with child protection services showed that 3 in 4 ME families had a CYF service contact by 4.5-years, in comparison to 1 in 11 non-exposed children (p < .00). By 4.5-years, 23 ME children had at least one out-of-home placement (p < .0001) with 12 ME children in foster-care at follow-up (p < .00). Out of home placement did not appear to have adversely or positively impacted child behavioural adjustment as ME children with placement and ME children without placement displayed similar levels of emotional and behavioural problems (ps > .05). By 4.5-years, ME children were at an elevated risk of ADHD, oppositional defiant disorder and conduct disorder, and were significantly more likely to have had an out-of-home placement. Further follow-up will be important in determining the impact of placement history and placement quality on the emotional and behavioural outcomes of this vulnerable population. None the less, the current findings raise concerns about ME children’s early emotional and behavioural adjustment outcomes, particularly in relation to the early transitions into formal education.

A SNAPSHOT OF HEALTH AND EARLY CHILDHOOD DEVELOPMENT IN INDONESIA: BASELINE RESULTS

AMELIA MAIKA (Gadjah Mada University), ELAN SATRIAWAN (Gadjah Mada University), AMANDA BEATTY (World Bank), SALLY BRINKMAN (The Telethon Institute for Child Health Research), & MENNO PRADHAN (Free University of Amsterdam) amelia_maika@yahoo.com

The presentation aim to show child development outcome in Indonesia based on the baseline results from impact evaluation study of early childhood education and development intervention program in Indonesia. This is the first research that shows how Indonesian children are doing comparatively to other countries particularly in child development outcome. It describes the condition of children from various aspects including health status, socio economic condition, cognitive development, behavior as well as the existing early childhood services and its utilization. Child development outcome herein is measured using the Early Development Instrument (EDI), Strengths and Difficulties Questionnaire (SDQ), and The Dimensional Change Card Sorting (DCCS). In addition, child health status is measured using anthropometric assessment (height for age and weight for height). Using the principal component analysis based on household assets, household who stay at the 20 percent bottom quintile categorized as poor.
Through randomized control sampling trial, sample is collected from around 6370 children age 1 and 4 years old from 310 villages in nine districts. Subject includes household, caregiver and children. Data at community level are collected from village official and health care staff. Based on EDI, study shows a high level of vulnerability in language and cognitive domain, yet has a positive result in social competence domain. The vulnerability in language and cognitive is possibly due to inadequate cognitive stimulation at home, low parental education, and poverty status. Statistical analysis supports the literature finding that language and cognitive ability as well as social competence significantly associates with gender and poverty status. From SDQ, we find there is an indication of hyperactivity/inattention symptom among the children whereas strength is found in prosocial domain. Among the four year old group, based on the executive function test, Indonesian children perform better than children in the Philippines and quite similar with those in Jordan.

To conclude, among many factors that correlate with child development outcome, this study supports the theories child development outcome associate with gender, poverty, and caregiver practices. The availability of early childhood services at village level somewhat explain the lack of participation in this services. Policy recommendation discussed in this paper include increasing awareness in health issue, introducing parent or caregiver various method to increase cognitive stimulation at home, and joint collaboration between ECED center with other existing child services.
EDUCATION FOCUS

PROFESSIONAL IDENTITY DEVELOPMENT – WHAT CONSTITUTES PROFESSIONAL BEHAVIOUR AND INTERACTIONS FOR PRE-SERVICE TEACHERS?

ZOE A. MORRIS (Monash University)
zoe.morris@monash.edu

There is growing pressure placed on higher education training providers to develop and produce quality graduates who possess the internal awareness of ethical behaviour and decision making skills to operate independently in a manner in line with their professional code. The Professional Interactions and Behaviours Scale (PIBS; Morris, Richardson & Watt) was developed to assess the attitudes of prospective teachers towards the appropriateness of specific student-teacher interactions, as an indicator of their level of professional identity development. Teacher education students (N = 166, 64.5% female, M age = 21.36 years, S.D. = 2.17) in their final years of a secondary education degree at an Australian University completed a survey investigating professional identity development. Using the PIBS, opinions of acceptable behaviour for student-teacher interactions in real life (e.g. “how appropriate is it to share your personal problems with a student?”) and in the digital world (e.g. “when working in the profession, would you accept a friend request from a student?”) were explored. Participants also reported their perceived level of ethical training and preparedness, in addition to their current sense of professionalism. Participants strongly endorsed the notion that “teachers should possess professionalism” (M = 6.11, SD = 1.27, where 1 = strongly disagree to 7 = strongly agree). However, the adequacy of ethical training in pre-service degrees was generally reported as being “not at all adequate” (28.7%) or “somewhat adequate” (43.7%). Almost half of participants reported that only “some” ethical training (approximately 1 to 5 hours over 3 to 4 years of training) had been provided (45%), 25% believed they had received no ethical training (despite all participants being enrolled in the same degree). PIBS survey items relating to appropriate behaviours and interactions between teacher and student yielded a range of responses, suggesting a lack of clarity regarding appropriate boundaries and professional interactions between teachers and students. Pre-service secondary teachers strongly endorse the notion of teacher professionalism. However, they perceive their training to date has been somewhat inadequate in preparing them for the ethical issues faced in the profession. Traditional ethical issues for teachers such as boundary crossing, confidentiality and dual relationships have an added layer of complexity in the digital age where personal disclosure and relationships can also occur online with students. Professional identity is an important asset for ethical decision making, and the development of an internal awareness of professional boundaries, accountability and responsibility in online and offline environments is crucial for teachers in the digital era.

PLANNED PERSISTENCE AND BURNOUT AMONG BEGINNER TEACHERS

NILUSHA DE ALWIS, HELEN M. G. WATT, & PAUL W. RICHARDSON (Monash University)
nilusha.dealwis@monash.edu

Australia is currently facing a shortage of suitably qualified teachers in specific subject areas and geographical locations. While an ageing workforce retiring is contributing to this situation, a significant proportion of early career teachers leaving the profession is worsening this shortage. It has been estimated that approximately a quarter of beginner teachers leave within 3-5 years of entering the profession. While factors such as workload, salary, desire for new challenges, and school environment have been put forward as factors that influence beginner teachers, burnout has also been linked to early career attrition in recent times. Therefore the objectives of this research are to identify the professional plans and burnout levels among a sample of Australian beginner teachers, and to investigate potential individual and environmental influences on planned persistence and burnout dimensions. 334 beginner teachers selected from a larger longitudinal study (FIT-Choice: Factors Influencing Teaching Choice Project), were included in this research. The sample included both primary and secondary teachers and they had been in the teaching profession between 2 and 7 years. Burnout was measured by using the Maslach Burnout Inventory-Educators Survey (MBI-ES) which provided scores for three symptoms of burnout: Emotional Exhaustion (EE), Depersonalisation (DP) and Personal Accomplishment (PA). Approximately one-fifth of the participants were not intending to teach in the long term, with 4 indicating they did not want to teach anymore and the rest were hoping to teach in the short term and then pursue a different career. Moderate levels of EE, low DP and high PA were prevalent. Self-efficacy in managing
a classroom influenced all three symptoms of burnout, while stress and demand influenced DP and EE. Levels of EE influenced plans to persist in the profession. Approximately 20% of this sample intended to leave the profession and this is likely to impact the supply of teachers in a climate of teacher shortages. While high burnout was not experienced across all three dimensions, this sample of teachers exhibited elevated EE, suggested to be the initial stage on the path to burnout. This study also identified a number of influential factors that could be effectively addressed to lower burnout levels, as well as prevent it, in beginner teachers.

CREATIVITY: TEACHERS’ BELIEFS AND PRACTICES
CHRIStINE COMERFORD & CLAIRE FLETCHER-FLINN (University of Otago)
christine.comerford@otago.ac.nz

This study explored teachers’ implicit theories of creativity and how it is fostered in the classroom. It included an intervention to determine the effect of short-term professional development on teachers’ views and practice. The participants were 55 practicing primary teachers in the south of New Zealand, comprising an intervention group (28 teachers) and a comparison group (27 teachers). Each group filled out two questionnaires. The first questionnaire was filled out pre- and post-intervention, two weeks apart. Data on demographics were collected, as well as personal definitions, beliefs about identifying and fostering creativity and strategies used in the classroom. The intervention consisted of a one-off short-term professional development session of one and a half to two hours that covered many of these aspects of creativity. One month later, the second questionnaire was filled out and explored the extent to which awareness and practices shifted. The results were consistent with those overseas. New Zealand teachers received little or no professional development on creativity and tended to hold vague definitions about creativity, which they described in terms of children’s characteristics. The idea of ‘originality’ was the predominant feature associated with creativity. There was a significant positive correlation between the level of professional development and acknowledging creativity, and between the level of professional development and identifying creativity. The correlation between the level of professional development and fostering creativity did not attain significance. All teachers in the study reported using some strategies to develop creativity. Chi-squared tests showed that the intervention group reported reading more material about creativity. Most participants indicated that they would like further professional development on creativity. The results have implications for education in that they highlight the lack of emphasis on creativity in our education system and the need for more professional development training for our teachers.

MEASURING PROFESSIONAL IDENTITY DEVELOPMENT OF PRE-SERVICE TEACHERS IN THE 21ST CENTURY
ZOE A. MORRIS, PAUL W. RICHARDSON, & HELEN M. G. WATT (Monash University)
zoe.morris@monash.edu

The Professional Interactions and Behaviours Scale (PIBS; Morris, Richardson & Watt) was developed to assess the degree to which prospective teachers have developed an understanding of appropriate and professional interactions with their students. Pre-service teachers (N=166, 64.5% female, M age = 21.36 years, S.D. = 2.17) in their final years of a secondary education degree at an Australian University completed a survey investigating professional identity development. In the PIBS, pre-service teachers were asked to rate how acceptable they perceived specific student-teacher interactions and behaviours to be on a scale of 1= unacceptable to 5= acceptable. Items included situations that occur at school “using hugging as a means of congratulating a student” outside school “driving a student somewhere in your car” and in the digital world “being friends with a student on a Social Networking Site (e.g. Facebook)”. Initial examination of the psychometric properties of the 26 item PIBS appears promising. The scale has two higher order dimensions termed “student befriending” and “weak boundaries”. Examples of student befriending behaviours and interactions are “accepting a hug from a student” and “text messaging with a student”. The weak boundaries dimension was characterised by interactions where the teacher discloses information regarding their personal life outside of school, thus signifying weak professional boundaries (e.g. “speaking on the phone about non-school related topics with a student” and “showing a student personal photographs of significant life events”).
Preliminary findings from the PIBS involving a sample of prospective teachers are also discussed whilst considering the efficacy of pre-service training in the context of professional identity development. The PIBS is a psychometrically sound, and unique measure that has practical applications for both pre-service and in-service teachers. The PIBS acknowledges the complexity of student-teacher relationships in the 21st century, particularly with recent advances in digital and social media. Whilst it is the small minority of teachers who are called into disrepute for serious misconduct, all teachers should be aware of the appropriateness of their everyday interactions with students both within the school environment and beyond, to ensure they maintain their professional responsibilities and reputation.
NO STAGES IN LEARNING TO READ? BUT CONTINUITY OF PROCESS INTO ADULTHOOD IN NEW THEORY AND RESEARCH

ABSTRACT

New alternatives are presented for the standard developmental concepts of the acquisition of reading, which are overdue for replacement. The justification is conceptual and theoretical as well as empirical. First, reading text is a skill that is time dependent, involving rate of reading (in time), as well as word accuracy. There is no justification for continuing to ignore rate of reading as significant for beginning readers. Second, it is no longer tenable to exclude different approaches to reading instruction as a relevant component in theories of acquisition. Third, it is not tenable to claim that normal development of reading skill can only emerge from the child’s explicit knowledge of letter-sound relationships. Implicit knowledge of such relationships (embedded in the word reading processes) can be a sufficient and continuing basis. Fourth, there is also the claim that the child needs to have explicit awareness of component (phoneme) sounds of words in order to acquire the use of letter-sound relationships for reading words that are new or unfamiliar (in print). This claim is too strong. These claims on letter-sound relationships and phoneme awareness rest on the concept of reading acquisition as a linear sequence of developmental change from initial explicit knowledge of word parts to internalized knowledge of, for example, the whole (print) word. The Knowledge Sources theory proposes an alternative implicit lexicalized mechanism, with significant developmental continuity. In this, the acquisition of an accumulating word reading vocabulary (lexicon) involves continuing feedback from word parts identifiable as common within (subsets of) the current whole reading vocabulary. If children receive initial reading instruction with an emphasis on explicit phonic, the developmental sequence of the standard concept is likely to co-exist along with the proposed alternative functioning as an underlying implicit mechanism. Without explicit phonic, this implicit lexicalized mechanism would be sufficient for normal progress. There is evidence that demonstrates problems with the standard concepts and shows the plausibility of the alternative. This evidence is from a range of studies with preschoolers to adults, in both the learning of alphabetic English by different teaching approaches and the (mainly) syllabic Hiragana of Japanese.

BIOGRAPHICAL SKETCH

G. Brian Thompson worked as a psychologist with the New Zealand Department of Education for seven years before taking up a position as senior teaching fellow in the Faculty of Education at Monash University, Melbourne, Australia, where he received his PhD. From 1978 to 2001 he was a senior lecturer in the Department of Education at Victoria University of Wellington, New Zealand, and subsequently as a senior research associate of the University. He is currently an associate of the School of Educational Psychology and Pedagogy. Brian was a member of the Literacy Experts Group formed by the Ministry of Education, 1998-2003, and was International Coordinator on the Board of Directors of the Society for the Scientific Study of Reading (USA), 2000-2002. He is a co-author of Reading Acquisition Processes (Multilingual Matters, Clevedon, UK, 1993) and co-editor and an author for Learning to Read: Beyond Phonics and Whole Language (Teachers College Press, New York, 1999). Research collaborations across universities, both internationally and within New Zealand, have been a feature of his continuing publications on the learning and teaching of reading, which have appeared in several book chapters and in international research journals including Cognition, Memory & Cognition, Cognitive Neuropsychology, Journal of Experimental Child Psychology, Applied Psycholinguistics, Reading and Writing.
PATHWAYS TO CHILDHOOD RISK: FINDINGS FROM NEW ZEALAND LONGITUDINAL STUDIES

DIONE HEALEY (University of Otago)
dionehealey@psy.otago.ac.nz

JEFFREY HALPERIN (Discussant)

New Zealand is very fortunate to have a number of very rich and diverse longitudinal data sets enabling us to gain a deeper and more complex understanding of the vast array of risk and protective factors in relation to child development over the lifespan. This symposium features presentations from three longitudinal studies focusing on unique aspects of child development. The first presentation will explore an array of possible predictors of the development of Oppositional Defiant Disorder and Conduct Disorder within a longitudinal sample followed from 0-14 years as part of the Christchurch Health and Development Study. The second presentation will focus on data from the Pacific Islands Families Study based in Auckland. It will highlight relationships between maternal, cultural, and socio demographic and child behaviour problems using a longitudinal sample where data was collected from 2-6 years old. The third presentation will feature data from one of the longitudinal studies run by the Canterbury Child Development group based in Christchurch. Here the Executive Functioning profiles, at age 4, of children born very preterm and those born full term will be compared and related to neonatal white matter assessed by MRI scans taken at term equivalent for all preterm babies. Finally, the discussant will tie together this work and encourage discussion in light of the work presented within the symposium.

DEVELOPMENTAL ANTECEDENTS OF ADOLESCENT BEHAVIOUR DISORDERS IN THE CHDS COHORT

JOE BODEN
joseph.boden@otago.ac.nz

The objectives were to examine the social, family background and individual antecedents of conduct disorder (CD) and oppositional defiant disorder (ODD), the extent to which CD and ODD symptoms were predicted by common environmental risk factors, and the extent to which the antecedents of CD and ODD accounted for the comorbidity between the two disorders. Data were gathered from 926 members of a New Zealand longitudinal birth cohort, the Christchurch Health and Development Study. The outcome measures were DSM-IV symptom count measures of CD and ODD at age 14-16 years. Predictors measured during the period 0-14 years included: maternal smoking during pregnancy; exposure to socioeconomic adversity; parental maladaptive behavior; childhood exposure to abuse and interparental violence; gender; cognitive ability; and affiliation with deviant peers in early adolescence. Associations between the predictors and outcome measures were modelled using structural equation modelling. The analyses showed that each of the predictors was significantly (p < .05) associated with CD and ODD, with the exception of gender and ODD. After model fitting, the profile of risk factors that predicted CD and ODD were largely similar. The analyses revealed that approximately 40% of the comorbidity between disorders could be accounted for by common factors. The data showed that CD and ODD had largely similar social and environmental antecedents. One implication of this finding is that treatment and prevention approaches that are developed for use with a particular behaviour disorder may in fact reduce the incidence of both disorders.
PACIFIC ISLANDS FAMILIES (PIF) STUDY: RISK FACTORS FOR BEHAVIOUR PROBLEMS DURING CHILDHOOD

JANIS PATERSON
janis.paterson@aut.ac.nz

The aims were to determine the: (1) prevalence of mother-reported child behaviour problems at two, four and six years of age among a cohort of Pacific families; and (2) relationships between maternal, cultural, and socio-demographic variables and child behaviour problems. The Pacific Islands Families (PIF) Study is following a cohort of Pacific children born in 2000. The Child Behaviour Checklist was used to measure internalising and externalising behavioural problems. At 24 months, 1,144 (83.1%) mothers were interviewed in relation to 1,162 children, at four years, 1,048 (76.1%) mothers were interviewed in relation to 1,066 (76.3%) children, and at six years, 1,001 (72.7%) mothers were interviewed in relation to 1,019 (72.9%) children. The prevalence of clinical internalizing problems at ages two, four, and six years was 16.9%, 22% and 8.5%, and clinical externalizing was 6.7%, 10.7%, and 14.6% respectively. Significant risk factors associated with clinical internalizing were maternal depression, maternal smoking, intimate partner violence, and having a single mother. Significant risk factors for clinical externalizing were harsh disciplinary practices, maternal depression, having a NZ-born mother, and low household income. Across dimensions, a protective factor was found for children with mothers who described themselves as strongly aligned with Pacific traditions. The findings highlight the lifestyle factors associated with high levels of problematic child behavior, and the powerful, though inconsistent, association between Pacific child ethnicity and behaviour across early childhood. The important role of culture was highlighted by the strong protective factor, maternal alignment with Pacific traditions, for problematic child behavior.

NEONATAL WHITE MATTER ABNORMALITIES PREDICT GLOBAL EXECUTIVE FUNCTION IMPAIRMENT IN CHILDREN BORN VERY PRETERM

LIANNE J WOODWARD, CARRIE C CLARK, VERENA E PRITCHARD, PETER J ANDERSON, & TERRIE E INDER
lianne.woodward@canterbury.ac.nz

Very preterm children are at high risk of global cognitive delay. However, little is known about the specific neurocognitive impairments associated with preterm birth or their neurological mechanisms. The objective was to describe the executive functioning profile of preschool children born very preterm, and to examine relations between the severity of cerebral white matter abnormalities on term MRI and later executive risk. The study sample consisted of a regionally representative cohort of 105 very preterm infants (<33 weeks gestation) born between Dec 1998-2000 and a comparison group of 107 full term infants. At term equivalent, all preterm infants underwent a structural MRI scan that was analysed qualitatively for the presence and severity of cerebral white matter abnormalities (WMA), including cysts, signal abnormalities, loss of white matter volume, ventriculomegaly and corpus callosal thinning/myelination. At 4 years corrected age, very preterm and full term children were assessed on a battery of executive function measures that assessed planning ability (Tower of Hanoi), selective attention (Visual Search), inhibitory control (Shape School) and cognitive flexibility (Shape School, Flexible Item Selection Task). At age 4 years, very preterm children performed less well than full term children on measures of planning ability (p=.01), cognitive flexibility (p=.04), selective attention (p=.07) and inhibitory control (p=.01). However, these executive impairments were confined to preterm children with earlier mild and moderate-severe white matter abnormalities. Very preterm children without cerebral white matter abnormalities showed no cognitive impairments relative to their full term peers on these detailed neuropsychological measures (p>.20). Findings highlight the importance of neonatal white matter abnormalities in placing preterm children at risk of both global and specific cognitive delay. Cerebral connectivity is important for later intact cognition in this high risk group.
THEORY OF MIND AND SOCIAL LIFE IN TYPICAL CHILDREN AND THOSE WITH AUTISM

VIRGINIA SLAUGHTER (University of Queensland)
vps@psy.uq.edu.au

Theory of mind (ToM) refers to the uniquely human ability to represent and reason about others’ mental states when predicting or interpreting their behaviour. For the last two decades, developmental researchers have carefully investigated when, how, and under what circumstances ToM development proceeds in early childhood. This research effort is driven by a number of related hypotheses, two of which are addressed in this symposium. First, it has long been argued that the capacity to reason about others’ mental lives underpins the complex everyday social interactions in which humans constantly engage. Therefore acquiring a ToM may have significant implications for how children interact with others. A second, corollary hypothesis is that individuals who have difficulties in everyday social interactions, such as those with an autism spectrum disorder, may have those problems because of a deficit or delay in ToM development. The papers in this symposium provide new data relevant to both of these hypotheses. De Rosnay and Fink demonstrate that ToM development impacts children’s everyday social competence as they enter into school, with lasting implications for peer acceptance as they progress. Slaughter et al provide novel evidence for a direct link between young children’s ToM and their skill in social interaction with a peer. O’Brien et al investigate how ToM development in children with autism is related to the presence of siblings – who provide daily social interactions – in the family. Dissanayake et al explore ToM development in children with high functioning autism, and discuss their findings in relation to those children’s everyday social functioning.

THEORY OF MIND, SOCIAL CONDUCT, AND PEER ACCEPTANCE: LONGITUDINAL PERSPECTIVES FROM KINDERGARTEN TO YEAR 1

MARC DE ROSNAY & ELIAN FINK
marc.derosnay@sydney.edu.au

This study explores the relation between children’s theory of mind (ToM), classroom behaviour and peer acceptance during the period in which children transition to school. It has been widely argued that individual differences in children’s understanding of mind and emotion, their theory of mind (ToM), exert a large influence on their social competence, and thus contribute to their social integration and feelings of wellbeing. The findings reported here examine the concurrent and longitudinal influences of ToM on children’s behaviour in the classroom and with peers (as reported by teachers), and their peer acceptance. In Kindergarten (T1), 114 children were recruited from three schools, ensuring to recruit as many children from each class as possible (>60%). In Year 1 (T2), 104 children were retained in the sample. At T1, children’s theory of mind was measured using a range of well-accepted social cognitive understanding tasks tapping a range of abilities (i.e., false-belief [FB] understanding, emotion understanding [EU], affective labeling, empathy), and verbal abilities were also comprehensively assessed. At T1 and T2, teachers completed a range of questionnaires concerning children’s behaviour with peers and in the classroom setting, and social preference ratings were obtained from peers. In keeping with previous research, concurrent relations at T1 showed that there was a robust relation between children’s ToM and their social competence. Higher FB understanding and EU scores were robustly related to greater social maturity and social skills; and these relations persisted longitudinally. Furthermore, greater FB understanding was strongly, independently associated with higher levels of peer acceptance at T1. Longitudinally, however, only T1 peer acceptance robustly predicted T2 peer acceptance. The current findings suggest that children’s ToM may be of tremendous importance for fitting in and making friends during the transition to formal schooling. Between Kindergarten and Year 1, however, children’s friendship history and their track-record with their peers is likely to take on particular significance for future peer relations. Thus, even though teachers are sensitive to children’s changing ToM abilities, such changes do not appear to influence children’s reputations with their peers.
The last two decades of research on theory of mind (ToM) reasoning in young children has revealed a major shift, around age 4, in children’s capacity to reason about what is in their own and others’ minds (Wellman, Cross & Watson, 2001). Although the complete developmental trajectory for ToM extends from late infancy (Moll & Tomasello, 2007) into adolescence (Dumontheil, Apperly & Blakemore, 2010), the ToM developments of the preschool period, in particular, are recognised as a significant milestone of social development. Many developmentalists would therefore endorse the view that “children’s social lives are dramatically transformed when they can understand that human actions are governed by mental states…” (Hughes & Cutting, 1999, page 429). In support of this view, we report a novel investigation of whether and how success on standard tests of ToM relate to young children’s everyday social interactions. We developed a new naturalistic task that invites children to use their ToM to achieve the social-interactive goal of persuading someone else to change their behaviour. In our new task children are introduced to a puppet named Matty who doesn’t like to eat broccoli. The children are told that their job is to “Get Matty to eat the broccoli just by talking to him and telling him things.” Children are given three attempts at persuading Matty and their responses are coded in terms of (1) the absolute number of independent persuasive arguments, and (2) the quality of those arguments as either: (a) positive, reward-oriented, e.g. “if you eat the broccoli you will be healthy” or (b) negative, punishment oriented, e.g. “if you don’t eat it you will get sick.” We also coded (c) politeness modulations, e.g. “please eat it.” We tested 62 3- to 8-year-olds (M age = 6 years; 6 months) on the peer persuasion task as well as a battery of standard false belief tests. We found that the number of persuasive arguments children produced was significantly associated with their ToM scores, even after controlling for age, gender and verbal ability. Together these studies introduce a new method for assessing children’s spontaneous social competence and demonstrate that ToM understanding significantly predicts how children apply that understanding to persuade a naturalistic interaction partner to change his mind.

There is evidence that having child siblings is positively associated with theory of mind (ToM) in typically developing children. As ToM is central to everyday social behaviours it was important to extend this research to examine the possibility of similar sibling effects for children with autism spectrum disorders (ASD). In line with the sibling interaction-opportunity hypothesis, we examined whether having neuro-typical siblings at all and having siblings who are older versus younger was related to ToM development for children with ASD. The participants were 60 children aged 4-12 years old diagnosed with autism spectrum disorder (ASD). They were assessed on batteries of theory of mind and executive functioning (EF) tasks taken from McAlister and Peterson (2006). There verbal mental age (VMA) was assessed using the PPVT-III and their diagnosis and severity was confirmed using the autism diagnostic observation schedule (ADOS). Number of child-aged siblings (1 to 12 years) and position in the sibling constellation were also noted. Having at least one older sibling was a significant negative predictor of ToM performance for children with ASD, even after controlling for age, VMA, executive function and autism symptom severity. A weaker ToM benefit of younger siblings was not statistically significant independently of control variables. Contrary to research findings with typically developing preschool children, having an older sibling was a disadvantage for ToM development in children with ASD. It is possible that first-born or only children with ASD receive more interventions than later born children with ASD, due to parents having more time and resources. It is also possible that older siblings may over-compensate for their younger ASD siblings in social interactions, thereby limiting opportunities for social-cognitive growth. Parental attitudes, family resources, cultural norms and access to educational interventions may also conceivably be relevant and clearly warrant further research.
While there is substantial evidence for theory of mind (ToM) impairments in autism, individuals with autism do not uniformly fail tasks developed to test this ability. These tasks vary from those designed to test social-cognitive aspects of mentalising (e.g., first and second order false belief understanding) to those that test social perceptual or affective aspects of mentalising (as in the Reading the Mind in the Eyes task; Baron Cohen et al., 2001). Our first aim was to examine both aspects of mentalising in a sample of high-functioning children with autism (HFA) during middle-childhood to establish if their performance on each of these various ToM tasks were, firstly, distinguishable from their typically developing (TD) peers, and secondly, if their performance on these different aspects of mentalising were similar. A secondary aim was to establish if children with HFA showed equivalent performance on the ‘self’ and ‘other’ false belief questions on William’s and Happe’s (2009) Plaster’s task. Finally, the relationship between these different aspects of mentalising in each group was of interest, as was the relationship between performance on the ToM tasks and their ability to succeed on an affective perspective taking task. The sample comprised 21 children with HFA and 17 TD children aged between 8 – 11 years who were administered two first order (Unexpected Transfer and Plasters Tasks) and a second order (Ice Cream Task) false belief task, the higher order Eyes Task, and an affective perspective taking task (Real-Apparent Emotion Task adapted from Dennis et al., 2000). Group comparisons failed to reveal any differences, with the children with HFA and the TD children showing equivalent lower and higher order ToM abilities, regardless of whether the tasks assessed social-cognitive or social-perceptual aspects of mentalising. The real-apparent emotion measure also failed to differentiate two groups. Moreover, unlike in William’s and Happe’s study, the children with HFA showed equivalent performance on the ‘self’ and ‘other’ questions of the plasters task. Finally, in each group, performance on the Eyes task was more closely related to the real-apparent emotion task than the other social cognitive ToM measures. The findings reveal that the middle school aged children with HFA in the current study have good social cognitive and social perceptual mentalising abilities, at least as tested under laboratory conditions. The findings are discussed in relation to their cognitive strengths, and the application of these abilities in everyday life.
EDUCATION FOCUS

PROFILING STUDENTS’ AND PARENTS’ EDUCATIONAL EXPECTATIONS AND BELIEFS: RELATIONSHIPS WITH MOTIVATION, ACADEMIC ACHIEVEMENT, ENJOYMENT OF SCHOOL, FAMILY SUPPORT AND ENCOURAGEMENT

ELIZABETH R. PETERSON, CHRISTINE M RUBIE-DAVIES, DEBORAH A WIDDOWSON, & ROBYN S DIXON (University of Auckland)
e.peterson@auckland.ac.nz

The aim of this study was to identify different patterns of expectations and educational beliefs amongst students and their parents and how these patterns related to student achievement, motivation, and liking of school. We also examined whether the different parent and student profiles varied with respect to perceived family warmth and acceptance, support, and encouragement, and perceived teacher care. The mean age of the students was 14 years (SD = .5) and 58% of the students were female. The students identified themselves as being European (42%), Pacific Islanders (29%), Asian (18%), Māori (5%) or Other. The adults in the sample were mostly mothers (72%): fathers represented 24% and grandparents 4%. Of the parents/caregivers, for 36% the highest educational qualification was a primary or secondary school qualification, 32% had a trade or diploma certificate, and 32% had a university degree. Cluster analysis to identify the existence of groups of parents and students with different and meaningful educational expectation and belief profiles. Four clusters were identified, two contained students and parents with largely congruous beliefs and expectations (Overly High Expectations cluster and High Expectations cluster and two with incongruous student and parent beliefs and expectations (Low Student Expectations cluster and Low Parental Expectations cluster). Ethnic differences also appeared to exist in the cluster: Asian and Pasifika students were over-represented in the Overly High Expectation cluster, and the students of European descent over-represented in the Low Parental Expectations cluster. The findings suggested that students in the Overly High Expectations cluster and High Expectations clusters were more likely to adopt a positive approach to learning and school whereas those in the Low Student Expectations cluster and Low Parental Expectations cluster may be on an unfavourable educational trajectory and may need to be targeted for early intervention. These findings will be discussed.

THE CONTRIBUTION OF QUALITY HOME LEARNING ENVIRONMENTS TO A SUCCESSFUL SCHOOL TRANSITION: FINDINGS FROM THE LONGITUDINAL STUDY OF AUSTRALIAN CHILDREN

SUE WALKER & DONNA BERTHELSEN (Queensland University of Technology)
sue.walker@qut.edu.au

The quality of children’s early home learning environment and early learning competencies appears to be instrumental to school adjustment and achievement. Learning and engagement through school is contingent on the experiences and learning opportunities that children have prior to school. This paper reports data analyses from a nationally representative sample of children participating in Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC). Three research questions are addressed in the analyses: (1) Are early home learning experiences at age 4 years related to academic outcomes at 8 years? (2) Are differences in academic outcomes at age 8 accounted for by the level of children’s language and emergent academic skills at age 4 years? (3) Are differences in academic outcomes explained by children’s learning-related behaviours at age 6 years? The regression analyses use data from three data waves of LSAC, when children were age 4, 6 and 8 years. The sample group for the analyses were 3,643 children in the Kindergarten Cohort who were 4 years of age at recruitment into the study. Outcomes measures for the analyses when children were 8 years of age are teacher ratings on the Academic Rating Scales (ARS) for language and literacy and mathematical thinking. The measure of classroom behaviour at age 6 and 8 years is a 6-item measure of Approaches to Learning (e.g., attentiveness and task persistence). Children’s receptive language competence and emergent literacy skills at age 4 were measured by the PPVT and the Who Am I? Early home experiences at 4 years of age include reports of home learning activities from parent interviews. The regression analyses controlled for a number of socio-demographic factors. Significant contributions to learning outcomes were: being read to daily by an adult in the home at age 4 years; children’s approaches to learning at 6 years of age, and learning competencies at age 4 and
6 years. The regression models tested found that early learning experiences and competencies contribute to learning outcomes at age 8 years, over and above socio-demographic factors; nevertheless, the socio-economic position of the family and the child’s Indigenous status were influential in the full models tested. Positive learning opportunities prior to school appear to be critical to tackling social inequalities during childhood. In particular, these findings suggest that the early acquisition of learning-related social skills such as attentional skills and self regulatory skills prior to school entry is crucial.

WELL-BEING AND WORRY IN MIDDLE CHILDHOOD
MICHAEL TOWNSEND (Massey University)
m.townsend@massey.ac.nz

Worry in childhood has been linked to anxiety-related disorders and mental health conditions that reduce both personal well-being and the potential for learning in school. The incidence of these psychological conditions appears to have risen in New Zealand over recent years. This study examined the content and frequency of children’s worries in a sample of 111 normal preadolescent (10 and 11 year-old) children in New Zealand. Children first listed their worries in a free-response task. They then rated the frequency of their worry about 42 specific issues representing seven themes (school, home, social acceptance, appearance, health and safety, the environment, and the future). Ten percent of the children were also interviewed about the worries of children their age. All children completed a trait anxiety scale. Statistical analyses of the ratings indicated modest and similar levels of worry across all seven themes, with ratings significantly related to trait anxiety but largely unaffected by gender. Qualitative analyses suggested that worries were more likely to be about school, health and safety, and social issues. Worries had implications for school motivation, in particular, self-worth, confidence and perceived control.

COGNITIVE DEVELOPMENT ACROSS CHILDHOOD IN DOWN SYNDROME: A SYSTEMATIC REVIEW
CHARLENE RAPSEY, TESS PATTERSON, & PAUL GLUE (University of Otago)
charlene.rapsey@otago.ac.nz

A specific pattern of cognitive impairment has been described in children with Down syndrome (DS), however the temporal profile/trajectory of their cognitive development has not been clearly defined. Different authors have proposed that cognitive development may be linear (i.e. proceeding in a parallel but delayed fashion compared with control children), or that development may proceed in a more step-like manner (i.e. with periods of acceleration, deceleration, and/or plateau). A systematic search of the literature was conducted to identify data on cognitive trajectories in children with DS. Longitudinal studies from 1990 to the present, that quantitatively assessed aspects of cognitive performance in children and adolescents with DS, were included. Nine studies were identified: four assessed IQ and five assessed specific cognitive domains. Studies assessing IQ were consistent in reporting a decline in IQ from the beginning of childhood through to adolescence. Earlier and later IQ scores were correlated (i.e. children functioning poorly when first assessed tended to perform poorly at subsequent time-points). Population IQ scores in DS children tended to show less variability over time compared with control populations. Studies assessing change in specific cognitive domains over time predominately assessed language development and verbal short-term memory. Much of the reported data was uninterpretable due to combining data from DS children with a wide range of ages, and following them for relatively brief durations. One study demonstrated that changes in syntax comprehension over time varied by age (greatest improvements at 7.5y, minimal change at 12.5y, decline at 17.5y), whereas rate of improvement in syntax expression was not affected by age. The current literature is not able to accurately describe typical cognitive trajectories in children with DS, and additional research is needed to clarify this topic. Future studies should use standardized testing tools, should report age-equivalent scores, use analytical techniques to account for individual baseline differences, and limit the age distribution of enrolled subjects.

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ADULT TRANSITIONS
REAL GRADUATES, REAL TRANSITIONS, REAL STORIES: A REAL INSIGHT TO LIFE AFTER UNIVERSITY
APRIL PERRY (University of Canterbury)
aprilperry2@gmail.com

This presentation will highlight a recently completed study in which university (bachelor) graduates participated in a qualitative study on the transition from university to post-university life. In order to facilitate institutional support initiatives for these learners, it is imperative to first research the experiences, perspectives, and needs of these students in transition. The motive behind this qualitative research study was to seek recent graduates’ perspectives, experiences, and needs, as they are experts on their own lives and their personal journey through the post-university transition. The research focus was to illuminate the complexity and subjectivity of each individual’s experience of the post-university transition, and then, with the help of the students/graduates, identify areas of needed support the institution can meet. In this qualitative study, twenty graduates (graduated May 2009) participated in six months of research utilising various methods of data collection, which included in-depth monthly interviews, sectional journaling, and volunteered artefacts. Throughout data collection, a participatory approach was selected as the researcher and the participants co-constructed the evolving research design as well as the dissemination of the interpreted information throughout analysis. Participants were selected based on specified criteria, which included that they be young graduates who attended university immediately after high school, as to explore the perspectives of individuals transitioning into a full-time, non-academic environment for the first time. Additionally, the participants were broadly representative of their university’s student population in terms of degree choice and gender. Based on a synthesis of the research findings, some of the implications for practice include, but are not limited to: final-year/post-graduation seminar, support groups for students after graduation, holistic career services offered to recent alumni, enhanced internship programs, mentorship programs with professionals in their career, continued university staff mentorship/counseling after graduation, and community service/volunteer efforts for recent graduates and young professionals. Of all the emergent themes and transferable implications, two surfaced as the most dominant: First, guiding students in managing their expectations (of their degree, career, salary, etc); and second, helping students accept and understand a certain level of uncertainty that accompanies the completion of their degree. Both themes involve guiding students toward mentally and emotionally preparing for life after study as their primary identity shifts away from being a student. This session will unpack the details and findings of this study, as well as facilitate a group discussion on higher education students in transition.

EXPLORING THE SPACE OF ADULT IDENTITY DEVELOPMENT: THE ADULT IDENTITY DEVELOPMENT PROJECT
CAT PAUSÉ (Massey University), RON COLWELL, CHRIS KIESLING (Asbury Theological Seminary), & CAROLYN GRAHAM (Victoria Commonwealth University)
c.pause@massey.ac.nz

This paper explores the theoretical and methodological framework of the Adult Identity Development Project (AIDP). The AIDP was developed by Drs. Sorell and Busch-Rossnagel in 1982, and has been collecting survey and interview data on role-related adult identity for over 30 years. The AIDP provides a platform for various forays into topics of interest in adult identity development. These topics have ranged from spiritual identity to mother and work roles to addiction and recovery to sexual orientation. Based on in-depth interviews adapted by Sorell, Montgomery, Kiesling, Pausé, and Busch-Rossnagel (2002) from a protocol developed by Whitbourne (1986), the project has adapted to novel interests of particular researchers while maintaining a coherent theoretical and methodological approach. The theoretical frameworks of the AIDP will be reviewed, as well as the data collection materials, survey code-book, and interview rating manual. The AIDP is grounded in the paradigmatic assumptions of developmental contextualism/developmental systems theory, as conceptualized by Ford and Lerner (1992) and Lerner (2002). Erikson’s (1950, 1959, 1975) psychosocial theory of identity development, as elaborated by Côté and Levine (2002) and Whitbourne (1986), provides the theoretical framework for the research. The project has historically utilized convenience samples centred around the academic community of a large university, and a small portion of the respondents have been interviewed at
Time 1 and Time 2 waves, allowing for longitudinal assessment. The Role-Related Identity Interview (RRII) is adapted from a protocol developed by Whitbourne (1986). The questions included in the RRII interview are designed to probe the role salience and role flexibility of respondents’ identity in a variety of social roles, including wife/husband, mother/father, sister/brother, daughter/son, homemaker/breadwinner, and waged worker. Questions also are asked about gender, body, weight, spiritual, and sexual role-related identity. The RRII provides for a rating of motivation quality and intensity, affect quality and intensity, time commitment, and past, present and future reflectiveness and behavioural change. The ratings are a product of two trained raters coming to a consensus rating. Content analysis is then utilized to observe themes in and across the interviews. A mixed methods approach is also possible, utilizing non-parametric statistics with a small sample or parametric statistics across the entire sample.

THE IMPACT OF THE INTERNET ON PERSONAL, COMMUNITY AND ECONOMIC DEVELOPMENT IN RURAL OTAGO

GEOFF KEARSLEY (University of Otago)
geoff.kearsley@otago.ac.nz

Together with much of provincial New Zealand, rural Otago has seen significant changes to personal, social and community ways of life as a result of long standing patterns of rural depopulation. This was reinforced in the last decades of the Twentieth Century by extensive re-structuring and economic change. The progressive loss of services in rural service centres exacerbated this trend. Since the beginning of this century, the adoption of broadband internet communication by rural families and businesses has provided access to services, communication and economic opportunity for those who might once have been obliged to leave. Similarly, the growth of e-commerce has meant that, potentially at least, some people are no longer bound to urban locations and are free to move to more rural environments. This paper reports on the findings of two recent sample surveys conducted in the Maniototo and North Otago districts that seek to measure trends in internet use and their impacts upon residential and business mobility. Access to online services and social networking as well as the opportunities for internet based business activities appears to have made it possible for some to stay in their preferred rural environment and for some to be able to move there. The implications of this for personal, community and economic development are then discussed.

ALL GROWN UP: PRELIMINARY FINDINGS FROM A STUDY OF ADULTS ADOPTED FROM EASTERN EUROPE

RHODA SCHERMAN (Auckland University of Technology) & WENDY HAWKE (Inter-Country Adoption New Zealand)
rhoda.scherman@aut.ac.nz

Like many other Western countries, New Zealanders have adopted hundreds of children from Russia and Romania. Many of those adopted “children” are now emerging from adolescence and becoming young adults. Over the past two decades, some excellent international research has been carried out on this population of Eastern European-born children. However, the research focus has been fairly narrow, aimed predominately at the outcomes of early institutionalization, including the medical complications and developmental delays arising from prolonged institutional care. Furthermore, these childhood outcome studies have relied heavily on parental reports. Our aim was to broaden the scope of the earlier work, and to survey the adopted persons directly. While we were interested in finding out how this population has fared physically and developmentally, in light of their early institutional care, we also sought to learn more about the psychosocial adjustment and experiences of these adoptees, as compared with some New Zealand norms. Using a series of standardized assessments, as well as survey questions derived from New Zealand health reports, the current study investigated the physical health, mental health, coping, self-concept, ethnicity, relationships, and vocational successes of young adults (aged 18 years and older) who were adopted from Russia and Romania as children. The study used a mixed-methods approach, allowing for inferential analysis of quantitative data, as well as open-ended questions, in order to maximize breadth and depth of information. Overall, our initial data suggests these young adults have physical health, educational outcomes, relationships and lifestyles not too dissimilar to the norms within New Zealand. They also seem to be emotionally and psychologically healthy, and coping well with life’s stresses.
In fact, for most domains of development, the participants have shown adjustment outcomes far more positive than the early work on this population would have predicted. These preliminary results will be discussed, along with study limitations, directions for the next phase of the project, and implications for clinical practice.
SLEEP FROM INFANCY TO ADOLESCENCE

BARBARA GALLAND (University of Otago)
barbara.galland@otago.ac.nz

Sleep-wake patterns are driven by a complex interplay between biological processes, and environmental, behavioural and social factors. In infants and children, for example, day-care and school schedules, parental handling and expectations, family routines, cultural practices and physical health will all strongly influence sleep and timing. Added to this are individual differences in genetic make-up influencing sleep-wake regulation, e.g. temperament, and tendency to develop a “lark” or “owl”-type preference for sleep timing. Disruptions to sleep can strongly influence normal development and daytime functioning of children. This symposium aims to discuss the development of normal sleep across from infancy to adolescence, and then will bring in to play the latest research covering common factors that have the potential to influence sleep patterns e.g. cultural childcare practices in infancy and physical health in childhood and adolescence. The symposium will also examine the association between factors that disrupt sleep and poor daytime functioning. The research assembled covers a wide variety of techniques used in sleep research from the basic literature review and meta-analysis through to the gold standard measure of sleep using polysomnography.

A SYSTEMATIC REVIEW OF NORMAL SLEEP PATTERNS FROM INFANCY TO LATE CHILDHOOD

BARBARA GALLAND (University of Otago)
barbara.galland@otago.ac.nz

Sleep-wake regulation and sleep states evolve rapidly during the first year of life with continued maturation across childhood. Healthy timing of sleep and wakefulness in infants and children should translate to normal sleep patterns, but what constitutes normal is a difficult question to answer. Sleep problems are defined mainly by the parent/caregiver categorising sleep-wake patterns as outside the range of their expectations of normal. As far as we are aware, no systematic reviews have been published to define normal sleep patterns in infants and children. We extracted and summarized age-specific data from sleep measures in relation to the quantity of sleep over a 24-hour period, the number of episodes of waking during nocturnal sleep, sleep latency, the longest sleep over a 24-hour period, and the number of daytime naps. A literature search was conducted of the Ovid MEDLINE, Web of Science, CINAHL, Scopus and PsycINFO databases from January 1 1990, to July 2010. Search terms [sleep] and [infant or child, preschool or child] and [diary or actigraphy or questionnaires] were used. The search criteria yielded 2114 articles narrowed to extract data from 38 articles with data suitable for inclusion from 15 different countries. No New Zealand data could be included. The mean and measures of variability for the 5 sleep measures were collated and entered into a meta-analysis for age bands within age categories of infant (0 to 2 years), toddler/preschooler (3 to 5 years), and child (6 to 12 years). Mean values and ranges (± SD x 1.96) for each of the age bands were calculated. Measures were primarily from questionnaire data. Mean values and ranges for sleep duration by age category were: infant, 12.8 hours (9.8 to 15.8); toddler/preschool, 11.9 hours (9.3 to 14.5); and child, 10.5 hours (8.3 to 12.7). Night waking data provided 6 age-bands up to toddler age ranging from 0 - 3.4 wakes per night for infants aged 0 to 2 months, to 0 - 2 per night for 2 to 3 year-olds. Because the meta-analysis combined data from different countries and cultures, the mean values and ranges should be considered as international norms, rather than culture-specific norms. The usefulness of collating a systematic review is to provide a standard against which abnormal sleep patterns can be measured, to in turn inform policy and strategies for intervention, and to contribute to and advance our knowledge regarding developmental patterns of sleep.
THE PRACTICE OF BEDSHARING IN INFANCY: INFLUENCE ON INFANT AND MATERNAL BEHAVIOUR AND INFANT WAKING

SALLY BADDOCK
sbaddock@tekotago.ac.nz

Much is known about the sleep architecture of infants sleeping in a cot where commonly infants sleep through the night by 3 months of age. Laboratory studies of infant-maternal bedsharing show that these infants wake more frequently, spend less time in stage 3-4 quiet sleep and that maternal infant sleep cycles are synchronised. Parents report advantages of bedsharing such as encouraging breastfeeding, settling babies, reducing parental tiredness and increasing mother-baby interactions, and infant bedsharing has been associated with improved cognitive competence at 6 years of age. In other studies bedsharing is reported as increasing sleep disruption and sleep problems. We studied infants in their own home in their usual sleep situation (bedsharing or cot-sleeping) to identify the influence of bedsharing on overnight infant and maternal behaviour. Overnight home video and physiological recordings of 40 bedshare infants (5-27 weeks), were compared with 40 cot infants, matched for age and study season. Video data provided a log of infant and parent sleep positions, movements, interactions and sleep/awake state. Physiological monitoring provided infant shin and rectal temperatures, oxygen saturation and inspired carbon dioxide levels. Bedshare infants woke more frequently (mean wake times/night: 4.6 vs 2.5), but stayed awake for less time, leading to a similar total sleep time in both groups. Bedshare infants fed more frequently, and the mother commonly fed in a drowsy state. Infant and mother usually slept facing each other, touching, with the infant at mother’s breast level. Maternal checks were more frequent in the bedshare group (median:10, IQ range:7-23, max:55) than cot ( 4, 3-6, 16). In particular, 68% percent of head uncovering, following inadvertent covering, was facilitated by the mother, often prompted by the infant. Bedshare infants had a higher mean shin temperature and were exposed to episodes of elevated inspired carbon dioxide during head covering, but normal rectal temperature and oxygen saturation were maintained. In this group of healthy, low risk infants and parents, bedsharing proved to be an interactive and dynamic environment. Waking, feeding and maternal checking were all more common than during cot sleep leading to a different overnight sleep-wake pattern. Maternal proximity enabled easy interaction and facilitated increased breastfeeding, often with little maternal disturbance. Thus bedsharing appears to have considerable influence on infant and maternal behaviour and waking patterns. Whether these factors are described as problems likely depends on the culture and expectations of the family.

THE ASSOCIATION BETWEEN SNORING AND COGNITIVE DEVELOPMENT IN PRE-SCHOOL CHILDREN

AMELIA GILL  BARBARA GALLAND & AMELIA GILL
amelia.gill@otago.ac.nz

Sleep disordered breathing (SDB) is the result of airway obstruction during sleep, and represents a continuum of illness from Primary Snoring to Obstructive Sleep Apnea. SDB can cause sleep fragmentation and hypoxia, and the neurological effects of these problems are the focus of a growing body of research. SDB has been linked to impaired cognitive development in school-aged children, but the link between pre-school SDB and cognitive development is less well understood. This study examined whether persistent snoring, a marker for SDB, negatively correlates with the cognitive development of pre-school children. This longitudinal case-control study compared the cognitive development of 85 snoring and 85 non-snoring New Zealand children at ages 3 and 4. Participants were matched on age (mean 3.8; range 3.2-4.0), sex (M/F = 1.4), and deprivation index (a proxy for socio-economic status). Snoring was determined through objective home sleep monitoring, while cognitive development was measured using subtests from the Wechsler Preschool and Primary Scale of Intelligence – Third Edition as well as a variety of Early Growth Indicator Benchmark Assessments (EGIBA’s) designed to measure pre-school literacy and numeracy skills. Data from the 4-year olds is still being processed, so at this stage preliminary analysis has been performed on the 3-year old data only. EGIBA’s were normalised where necessary using log transformation. One-way ANOVAs were used to compare snoring and non-snoring groups, and Mann-Whitney U tests were also performed on raw data to examine the validity of the data transformation. Average performance of the non-snoring group (NS) was higher than the snoring (S) group.
for all 14 skills measured, with statistically significant differences found for the following nine tasks: global IQ (means: S=106; NS=111), verbal IQ (means: S=108; NS=114), language IQ (means: S=108; NS=114), letter naming, rhyming, oral counting, number naming, and visual discrimination (all p<0.01), as well as quantity comparison (p<0.05). The preliminary results of this study suggest that persistent snoring is associated with less well developed early cognitive skills in otherwise healthy 3-year-olds. Our findings are consistent with previous research on school-age children. Our next step is to investigate the affect of persistent snoring on the cognitive development of our participants one year on. In addition, future research should investigate the affect pre-school snoring has on school readiness and later academic achievement, and whether recovery from snoring during the pre-school years is associated with better academic outcomes later in life.

**OBESITY IN ADOLESCENCE: INFLUENCE ON SLEEP AND DAYTIME FUNCTIONING**

**EVAN TAN**  
evan.tan@otago.ac.nz

Sleep disruption as a consequence of obstructive sleep apnoea (OSA) is often associated with poorer behaviour, concentration, memory, intelligence, and impaired learning, however studies in specific clinical groups, such as obese children, are lacking. Obese children and adolescents are more prone to OSA believed due mainly to excess body fat constricting the airways, particularly during rapid eye movement sleep. This study aimed to establish a detailed description of problems with daytime functioning that can arise due to OSA occurring in obese children. Thirty-one participants (mean age 13.6 years, M/F = 0.6) with a mean BMI-for-age of 32.3 ± 4.9 (SD) enrolled. Participants were obese but developmentally healthy children aged between 10-18 years old recruited from the community or the paediatric obesity clinic at the Dunedin Public Hospital. Participants underwent overnight polysomnography and psychological assessments administered by a trained psychologist, blind to the participants’ OSA status. Participants were classified into OSA (apnoea-hypopnoea index (AHI) ≥ 1) and non-OSA (AHI < 1) groups according to their obstructive AHI. The median obstructive AHI obtained for the OSA group was 3.45 (range, 1.10 – 14.6). Behaviour, executive functioning, memory & learning, intelligence and academic achievement were assessed using the Behavioural Assessment System for Children (BASC-2), Behavior Rating Inventory of Executive Function (BRIEF), Wide Range Assessment of Memory and Learning (WRAML-2), Weschler Abbreviated Scale of Intelligence (WASI) and Weschler Individual Achievement Test (WIAT-II) respectively. For psychological assessment subscales, regression analysis was performed between OSA and non-OSA groups with intelligence and, sex or BMI, controlled for as appropriate. There was a non-significant trend for the OSA group to perform poorer across almost all assessments compared to the non-OSA group. WIAT-II Math scores in particular showed a strong trend; T scores for the OSA group were on average -7 points (95% C.I.: -15.3, 0.7) below non-OSA group T scores. Furthermore, T-scores for all subscales across all tests appeared poorer than the age-normed mean (except for WRAML-2 verbal memory), even for participants without OSA. However, statistical significance for this still needs to be established. Our findings suggest obese children with OSA tend to have poorer performance on psychological assessments of daytime functioning compared to their non-OSA, but obese, counterparts. Some previous studies report a relationship between childhood obesity and poorer child psychological/behavioural functioning. The results suggest this could be further compromised by OSA, possibly by disruption of the sleep patterns associated with obstructive respiratory events.
Older adults (≥ 60 years) are worse than young adults (≤ 30 years) at detecting certain auditory, bodily and facial expressions of emotion (Ruffman et al., 2008). In this symposium we extend such findings, examining age differences in deception, recognition of genuine rather than posed facial expressions of emotion, and implicit understanding of emotion. Deception. Older adults were less convincing when telling a lie. They were also worse at detecting a lie, although age differences were fully mediated by emotion recognition. That is, older adults’ worse emotion recognition accounted for their worse ability to detect a lie. The results might help explain why older adults are often targeted in fraud schemes.

Genuine emotion. Young and older adults (the emoters) were videoed when watching films clips designed to elicit anger, sadness, fear, disgust and happiness. Emoters rated their own subjective experience of emotion when watching the video clips. The emoters’ faces were then presented to a new group of young and older adults (the perceivers), who judged what the emoters were feeling. Emotions were, overall, more accurately detected when perceived by young than by older perceivers, and when expressed by young than by older emoters. An interaction between age of perceivers and age of emoter indicated that empathic accuracy was highest for young perceivers judging young emoters, and lowest for older perceivers judging older emoters. The results demonstrate that older adults’ difficulties judging emotion extend to genuine facial displays.

Implicit emotion recognition. Implicit understanding is often spared in normal aging; this study examined whether this was true of emotion recognition. Participants viewed emotion faces (e.g., an angry face) for 200ms with a congruent or incongruent label (e.g., “Angry”) placed in the middle of the face, and were told to ignore the face and read the word. Both young and older adults were quicker to read the word on congruent than incongruent trials, even though older adults were worse than young when explicitly labeling angry faces. The angry face likely activated emotion processing areas through a non-cortical route whereas explicit labeling required activation through a cortical route, with the cortex degrading more rapidly in normal aging. Emotion experience. Older adults viewed film clips while measures of their heart rate, skin conductance and facial muscle activity were taken. Older adults’ physiological response to film clips was reduced relative to young adults and was inversely related to self-rated loneliness.

AGE-RELATED DIFFERENCES IN DECEPTION

TED RUFFMAN

tedr@psy.otago.ac.nz

Older adults (>60) show a decreased ability to recognize facial expressions of emotion (Ruffman et al., 2008). Here we investigated the specific role that emotion recognition plays in any age-related change in the ability to discriminate truth from lies. Previous research suggests that the difficult task of lie detection is related to the ability to recognize emotions that may be “leaked” in the act of lying (Frank & Ekman, 1997; 2004). Given this relation between emotion recognition and lie detection we predicted older adults would be less capable lie detectors relative to young adults.

We also tested older adults’ ability to deceive. Aging is accompanied by declines in executive function (Buckner, 2004) and different forms of social understanding (e.g., Halberstadt, Ruffman, Murray, Taumoepau & Ryan, 2011), leading to the prediction that older adults may find it difficult to lie convincingly. To test these predictions, young (n=29) and older (n=26) participants judged the veracity of young (n=10) and older (n=10) speakers’ opinions about topical issues (e.g., drinking age). On half the trials the speakers told the truth (own view) and for the remaining half, lied (opposite view to own view). Given that any age-related changes in the ability to detect lies may stem not from emotion recognition specifically, but from more general declines in face processing, we administered two face processing tasks – an Emotion task requiring recognition of facial expressions of emotion (anger, fear, sadness, happiness, disgust and surprise), and an Age task in which participants judged the age category of faces (20-25, 30-35, 40-45, 50-55, 60-65, 70-75 years). The individually presented faces were displayed in separate blocks for 50 ms, 250 ms or until response. All participants found it easier to judge when an older adult was lying relative to a young adult, and older adults were worse than young adults at telling when speakers were telling the truth versus lying. Neither young nor older adults were advantaged when judging a speaker from the same age group. Older adults were less accurate than young adults on
both the Emotion and Age tasks across all durations. Importantly, emotion recognition performance (but not age-of-face judgment) was related to lie detection in older adults and fully mediated the age difference in lie detection. Thus, older adults were more transparent as liars, and were worse at detecting lies, with lie detection failures related to worsening emotion recognition rather than general face processing declines.

**EMPATHIC ACCURACY IN OLDER ADULTS: AN ANALYSIS OF TARGET AND PERCEIVER EFFECTS ON AMBIENT EMOTION PERCEPTION**

**JAMIN HALBERSTADT**

*jhalbers@psy.otago.ac.nz*

Empathic accuracy -- the detection and appropriate response to the emotional experience of others -- depends not only on perceivers’ skills but also on targets’ dispositional expressivity, particularly when inferring targets’ feelings (versus thoughts). Older adults show declines on both of these dimensions: Emotional expressivity declines naturally across the lifespan, even though there is no concurrent decline in the intensity of subjective emotional experience. At the same time, older adults experience a decline in their ability to recognize emotional cues in others, in a variety of modalities. These findings suggest that older adults should be less accurate overall when inferring the emotional states of others, and particularly same-age peers, yet no study has examined empathic accuracy across age groups. The purpose of the current study was to fill this gap by testing young and older adults’ ability to infer the emotional experience of young and older targets. The study used a novel, modified version of a standard empathic accuracy paradigm. First, young (<30 years) and older (>60 years) targets viewed short videos designed to elicit anger, fear, disgust, sadness, and happiness, while their faces were unobtrusively videotaped. The videos of the targets’ faces were then presented to young and older perceivers with instructions to infer the targets’ emotional state. Both targets and perceivers rated felt emotions on the same, emotion-specific scales. Analyses of the absolute value of participants’ and targets’ standardized emotion ratings indicated, first, that happiness, sadness, and fear were, overall, more accurately detected than either disgust or anger. Additionally, as predicted, emotions were, overall, more accurately detected when perceived by young than by older perceivers, and when felt by young than by older targets. An interaction between age of perceiver and age of target indicated that empathic accuracy was highest for young perceivers judging young targets, and lowest for older perceivers judging older targets. The results are important not only for documenting, for the first time, age-related changes in empathic accuracy, but also as a possible causal link to other social skills that decline with age, such as the ability to detect conversational interest, deception, and the appropriateness of social behaviour.

**IMPLICIT RECOGNITION OF EMOTION IN THE ABSENCE OF EXPLICIT RECOGNITION IN HEALTHY OLDER ADULTS**

**JANICE MURRAY**

*jjmur@psy.otago.ac.nz*

Older adults (≥ 60 years) are worse than young adults when labeling facial expressions of anger, sadness and fear (Ruffman et al., 2008). Such studies tap explicit understanding of emotion. Yet research also indicates that implicit knowledge is typically spared in aging (e.g., Bennett et al., 2007) and previous research suggests the same is likely true of emotion. For instance, participants have been shown nine faces in an array. Half the time all faces are the same (all neutral expressions) and half the time one is different (sad, happy or angry). When asked to identify a face as the same or different, both young and older adults were quicker to identify the face as different when it was angry relative to when it was sad or happy, even when older adults had difficulty labeling the faces as angry or sad (Hahn et al., 2006; Mather & Knight, 2006; Ruffman, Ng, & Jenkin, 2009). This task shows that angry faces are processed quickly and meaningfully, but does not require implicit knowledge that the angry face should be identified (labeled) as “angry”. In the present study, we examined whether older adults can implicitly identify angry faces as “angry”. Participants (32 young, 28 older) viewed emotion faces (angry, sad, fearful, disgusted, surprised, happy) for 200ms with a congruent or incongruent emotion word placed in the middle of the face, and were told to ignore the face and read the word as quickly but accurately as possible (80 trials for each emotion: 40 congruent and 40 incongruent). This task measured implicit emotion recognition, with faster response times on congruent trials expected if participants recognised...
faces as angry, sad, etc. On separate trials we asked participants to explicitly label each expression. Older adults were significantly worse than young adults when explicitly labeling angry faces, yet both age groups showed a priming effect, being quicker to read the label "angry" on congruent trials relative to incongruent trials. We argue that the angry face likely led to activation in emotion processing areas of the brain (e.g., the amygdala) through a non-cortical route, whereas explicit labeling required activation through a cortical route (Öhman, 2002, 2006). Our findings are consistent with the idea that implicit knowledge is intact in older adults and that brain aging is more rapid in cortical than non-cortical areas.

PHYSIOLOGICAL EXPERIENCE OF EMOTION IN YOUNG AND OLDER ADULTS

BEE TENG LIM
limbe373@student.otago.ac.nz

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 studies 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. Age-related decline in heart rates and skin conductance was 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. Loneliness, on the other hand, showed a trend towards exacerbating the effect of age on cardiovascular reactivity to the amusing film clip. In Study II, I aimed to replicate the findings of Study I, as well as extend Study I 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 a comparable level of zygomaticus 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 and body-voice matching tasks, older adults were worse at recognising all emotions except for surprise. Older adults also reported more habitual use of expressive suppression, and that was shown to affect emotion recognition performance. Again, older adults who reported a high level of self-perceived isolation showed a trend towards being less reactive physiologically to the amusing film clip. Taken together, these studies indicate that different components of affective functions are differentially affected by normal adult aging.
READING

‘A SPOTLIGHT ON PRESCHOOL’: WHAT PARENTS CAN CONTRIBUTE TO CHILDREN’S EMERGENT LITERACY SKILLS

GEMMA BOYLE (The University of Western Australia), KIMBERLEY BLOOR (The University of Western Australia), STEVE HEATH (The University of Western Australia), & DOROTHY BISHOP (The University of Oxford)

"Parents as Partners" trains parents of preschoolers in key aspects of literacy development. This longitudinal project will track children from Kindergarten (four years of age) to Year 2 (seven years of age) to examine the influence of parent training on pre-literacy skills. In this context, the present study explores within parent factors (i.e. socioeconomic and educational levels, family history of literacy problems, perceived self-efficacy, and phonological awareness) which could potentially impact on children’s literacy development and would therefore benefit from increased consideration. Relationships are explored between these factors and four and five year olds’ emerging literacy (including phonological awareness, alphabetic knowledge and early reading and spelling skills). Results indicated a significant positive association between parents’ and children’s phonological awareness. Socioeconomic status and parents’ education level showed moderate correlations with each other and significant, positive correlations with three of five measures of emergent literacy. High familial risk was linked to low phonological awareness in parents. Parents’ phonological awareness was also significantly associated with children’s at-risk status. These results point to the importance of targeting parent training to within parent factors which can be influenced (e.g. phonological awareness) especially in children facing elevated early risk.

THE EFFECT OF FIRST SPOKEN LANGUAGE ON READING COMPREHENSION IN ENGLISH

JANET FLETCHER, IVANA TARAN, & NINA MASTRANTONIO (University of Western Australia)

This study was designed to investigate factors known to contribute to reading comprehension, namely decoding, oral language skills (as measured by vocabulary size and grammatical awareness) and verbal working memory (VWM) in three groups of Year 4 children: English monolingual students, bilingual students whose first language is written in an alphabetic script and bilingual students whose first language is written in a non-alphabetic script. The aims were to determine: (1) whether there was a difference in the reading comprehension abilities of the monolingual and bilingual children, (2) whether there was a difference between the monolingual and bilingual children in four factors considered integral to reading comprehension, and (3) the relative contributions of each factor to variance in English reading comprehension within each group. The participants in this study were Year 4 students aged 8.10 – 10.11 years. There were 98 monolingual students, 34 bilingual students whose first language was written in an alphabetic script and 33 whose first language was written in a non-alphabetic script. Students were tested in two sessions of approximately 40 minutes each. First, reading comprehension was assessed in a class setting. Second, students were individually administered a questionnaire on language background and measures of decoding, language (both understanding of grammar and vocabulary) and working memory. There were no significant differences between the three groups in reading comprehension or decoding. The monolingual group was significantly better than the ‘non-alphabetic’ group at grammar and significantly better than both bilingual groups at vocabulary. Regression analyses indicated that decoding ability accounted for a significant amount of variance in reading comprehension in all groups. Years of English spoken accounted for significant variance in the ‘non-alphabetic’ group (32%). The language measures and working memory accounted for significant variance in comprehension only in the ‘alphabetic group’ (24%). Failure to find significant differences in reading comprehension between the monolingual and bilingual students suggests that students from other language backgrounds are developing the skills to access the school curriculum, at least with regards to literacy. It should be noted, however, that the monolingual students did have significantly better vocabularies than both the bilingual groups and better grasp of grammatical structures than the non-alphabetic bilingual group. This has implications for comprehension in later school years and suggests areas in which the bilingual students could benefit from targeted instruction.
DIFFERENTIAL DISADVANTAGES FOR ANGLOPHONE WEAK READERS

BRUCE KNIGHT & SUSAN GALLETTY (Central Queensland University)
b.knight@cqu.edu.au

The PISA studies of reading achievement of 15 year old students in OECD and partner nations show Anglophone nations to have continuing high proportions of weak readers (≤ Level 2), with no improvement in this area from 2000 to 2006 (PISA, 2007). The nations which have decreased their proportions of low achievers all use highly regular (transparent) orthographies, which expedite the development of efficient reading and writing skills (Galletly & Knight, 2004; in press). While international scrutiny is being focussed on socio-cultural differences in education as a basis of nations’ achievement differences, little consideration is currently being applied to the speed of reading accuracy and spelling development. This is surprising given the volume of research showing that orthographic regularity significantly expedites development of reading-accuracy and spelling, with very low rates of reading difficulties in nations with highly regular orthographies (Seymour, Aro & Erskine, 2003, Share, 2008). This presentation proposes Transition-from-Early-To-Sophisticated-Literacy (TESL) as a variable for use when considering cross-national achievement differences. The highly regular orthographies (spelling systems) of many nations expedite literacy development, and their children experience a rapid transition from Early Literacy (learning to read and write) to Sophisticated Literacy (reading and writing to learn). In contrast, English orthographic complexity impedes literacy development, particularly for weak readers (Knight & Galletly, in press; Galletly & Knight, in press). It is proposed that Complex TESL nations (including Anglophone nations) will need paradigmatically different mechanisms to those used by Resolved and Facilitated TESL nations, for improved literacy and academic outcomes by lower achievers. In the presentation, a model of differential disadvantage will be established through consideration of the research literature exploring the impact of English orthographic complexity on Anglophone Early Literacy development. This presentation proposes a model of differential disadvantage of Anglophone weak readers due to cognitive processing weakness and the high cognitive load of learning to read and write English. The disadvantage is differential, with Anglophone weak readers firstly disadvantaged compared to weak readers in nations with regular orthographies, and secondly, with subgroups of Anglophone weak readers being more disadvantaged, depending on their levels of language skills and cognitive processing efficiency. The model is a useful framework for considering the instructional needs of weak readers.

TEXT READING PROCESSES IN A RELATIVELY TRANSPARENT ORTHOGRAPHY: THE INFLUENCE OF UNDERLYING COGNITIVE-LINGUISTIC ABILITIES

AMIR SADEGHI (University of Canterbury and Islamic Azad University of Damavand), JOHN EVERATT (University of Canterbury), & BRIGID MCNEILL (University of Canterbury)
amirsadeghi@pg.canterbury.ac.nz

Findings of a cross sectional study investigating the cognitive-linguistic predictors of reading comprehension levels will be presented. The aim of this work was to support the identification (for example, by Educational Psychologists and/or special teachers) of children with literacy learning difficulties in the Persian language. The Persian orthography, unlike English, is written from right to left. It is cursive and most of the letters change their shape when connecting to letters on one or both sides. The orthography also has the feature of using marks to represent sounds within the language. These marks are not always included in written text, particularly in passages targeted at more experienced readers. Persian was chosen as a contrast with typical practices in the English orthography, and, therefore, the regularity of the relationship between written symbols and language sounds was a factor under consideration in the work. The present research focused on children attending government mainstream schools in Iran. These children (grades 2 to 5) were given measures of text reading and assessed on their underlying ability levels on measures of language competence, non-verbal skills, phonological ability, orthographic processing and speed of processing. Analyses indicated that Persian reading comprehension levels were predicted by measures of linguistic process and decoding ability, with the latter being predicted by phonological and orthographic processing skills. The findings will be discussed in terms of the application of the simple model of reading to Persian, which has an orthography with varying transparency between letters and sounds depending on whether short-vowel markers are included in the text or not. Cross-language comparisons will be made with English, the language from which the model was derived, and Arabic, which shares the
same orthography. The results argue for similar predictors of reading comprehension levels across the three languages, though cross-language data suggest that the assessment of these skills will need to be varied dependent on the features of the language/orthography. For example, the influence of the orthography on reading comprehension may be stronger in Persian/Arabic than previously found in English, potentially due to the complexity of the orthography. These findings can be considered in terms of the development of cross-language theories of literacy acquisition which may inform views and practices related to biliteracy.
EDUCATION FOCUS

HOW DOES TRANSITION HAPPEN FOR SOUTH-EAST ASIAN INTERNATIONAL STUDENTS IN AUSTRALIA?

ANN GUNS, PAUL W. RICHARDSON, & HELEN M.G. WATT (Monash University)
ann.guns@monash.edu

Australia universities are increasingly working to attract international students, often from neighbouring Asian countries. This has prompted research concerning how these international students fare once they arrive in Australia to undertake higher education studies. The study aimed to better understand the support needs of students during the transition from their home countries and institutions into Australian society, culture and education. The overall research design for this study is longitudinal and involves two waves of data collection, one at the program commencement (N = 342, with a mean age of 19.45 years) and another as students neared completion (N = 200, with a mean age of 20.40 years). The majority of participants (93.5%) were born in China, Indonesia, Hong Kong, Vietnam and Singapore. Established scales measured dimensions of Learning Strategies, Motivations, Life Goals, Sense of Belonging, and Quality of Life. Descriptive statistics were calculated for all the data collected, and repeated measures MANOVAs were conducted for those data collected at both waves to explore characteristics of students and transition their experiences. All Learning Strategies and Motivations had a score above the mid-point at both waves, but there was a significant increase over time notable for some Learning Strategies (Elaboration, Organisation, Peer learning, Help seeking), as well as for some Motivations (Intrinsic goal orientation, Control beliefs for learning, Test anxiety). They rated Life Goals highly, except ‘Migrating to Australia’ (rated below the mid-point), which suggests that international students study in Australia for reasons other than migration. Students experienced pleasing levels of belonging and safety as well as satisfaction with educators’ quality. Quality of Life was stable and adequate at both waves. A significant increase was found for their ‘satisfaction with their living conditions’. From the 1st to the 2nd wave there have been positive changes across a range of variables (e.g. Life Goals, Motivation, Learning Strategies, Quality of Life), indicating a positive evolution. Students aim to be happy, obtain a reputable degree, which offers them good career possibilities and a high salary, with many (69%) intending to find a job in their home country. This study is timely as increasing numbers of Asian students come to Australia for university education, at a time when there have been isolated incidents gaining widespread media coverage of international students’ negative experiences in Australia.

CHANGING PLACES, CHALLENGING TIMES: THE TECHNOLOGICAL TRANSITION FROM PRIMARY TO SECONDARY EDUCATION

KELLY KEACH & JULIE STITGER (University of Otago)
kelly.holtermantenhove@otago.ac.nz

ICT has assumed greater importance in education because of its potential to transform the learning landscape and offer real-time access to knowledge (Heemskerk, Volman, ten Dam & Admiraal, 2011), and several Dunedin secondary schools have adopted a one-to-one laptop programme for students. Teachers, therefore assume students will enter their classrooms from primary schools with a pre-existing Information and Communication Technologies (ICT) skill set. This has not been the case, with some teachers having to teach or re-teach supposedly basic skills, such as turning on a laptop. This disparate range of abilities within classes can lead to issues in classroom management and the integration of effective teaching and learning programmes. We considered the way in which secondary students use ICT based on their previous experiences at primary and/or intermediate schools, and discrepancies between their abilities upon entering secondary schooling and the impact this has on their transition as new entrants to Year 9. Data presented arose out of common themes emerging from an MA quantitative study investigating Year 9 secondary school students’ experiences with a one-to-one laptop programme in its first year in Dunedin, and a qualitative PhD study examining teachers’ understandings of cross-curricular ICT integration in primary, intermediate, and secondary schools in Dunedin. Students are entering secondary school with disparate ICT skills, depending on their previous experiences at their primary and/or intermediate schools. Effective one-to-one computing requires capable, confident ICT users that are able to self-manage, to problem-solve, and to access and manipulate information from multiple sources to generate new knowledge. Students already familiar with computer technology have an advantage over their lesser-
skilled classmates, and more teacher time is needed to up-skill students. This has significant implications for the trend of secondary schools now adopting one-to-one laptop programmes, as not all students are able to participate equally in terms of their information and computer literacy capacities. Primary schools therefore need to ensure students are equipped with the requisite ICT skills to facilitate their smooth transition into the secondary school context.

PREPARING STUDENTS FOR MULTILITERACIES: LOOKING TO TEACHER RESEARCH INTO THE IN AND OUT-OF-SCHOOL MULTILITERATE PRACTICES OF THEIR STUDENTS

SUSAN SANDRETTO & JANE TILSON (University of Otago)
susan.sandretto@otago.ac.nz

Currently education is caught in a contradiction between the prevalent, traditional forms of literacy instruction and the ‘new times’ in which cultural, economic, social and technological change create a demand for people who are multiliterate. In education these changes are encroaching on the classroom in the form of digitally mediated texts that draw upon multiple modes of communication including audio, gestural, spatial and visual as well as the more traditional linguistic. Yet current approaches to literacy instruction frequently resemble the traditional approaches that generations of New Zealand teachers have used. Teachers largely focus on supporting students to make sense of written texts. Teachers are less likely to encourage students to critically analyse texts, engage with a wide variety of text types, make use of the experiences students bring with them to school or capitalise on students’ ever-increasing out-of-school literacy practices. These new times and resultant multiliteracies present a challenge for educators: How do we prepare students for a rapidly changing multiliterate future? This paper presents findings from the first phase of an on-going research project into ways year seven and eight teachers can bridge students’ in and out-of-school literacies to enhance their critical analysis of multiple types of texts in order to prepare them for a multiliterate future. There is a paucity of research into the theories and practices of multiliteracies for the New Zealand context. The participating teachers in the research project described in this paper conducted an ethnography of the in and out-of-school literacy practices of one of their students using a variety of data sources. Then, influenced by the literature on multiliteracies, each teacher identified key themes in his/her data set. Each teacher presented his/her findings to the entire research team at a research hui. The findings from the ethnographies conducted by all the participating teachers will inform the second phase of the research that investigates the development of critical multiliteracies pedagogy. In this paper we present key findings from across the entire group of participating teachers and discuss the benefits and challenges of teachers conducting research into the multiliterate practices of their students as a means to inform pedagogy. We conclude with a framework for teacher research into the in and out-of-school multiliterate practices of their students.

CHILDREN’S PARTICIPATION: THE KEY TO IMPLEMENTING EFFECTIVE CURRICULUM

JUDY LAYLAND (University of Otago)
judy.layland@otago.ac.nz

Children’s participation rights are articulated in articles 12 and 13 of the United Nations Convention on the Rights of the Child (1989). They are also reflected in the curriculum for early childhood education in Aotearoa New Zealand, Te Whāriki (New Zealand Ministry of Education, 1996), and are at the core of its implementation. Affordance of these rights is a process which, in keeping with sociocultural theory, should be responsive to the voices of children and their parents, family and/or whānau, as they work in collaboration with educators/teachers (Layland, 2006). This presentation will draw on the results of a study, completed in 2010. The study aimed to establish the usefulness of a process model of children’s participation, Te Titi Pūrera (Layland, 2009), as a tool for home-based early childhood educators to use to critically reflect on, evaluate and develop their practice, as they implement curriculum framed by Te Whāriki. The results were different for each of the three home-based educator-participants, but showed that the model was useful for all of them to focus and reflect on specific aspects of practice critical to children’s participation in their home-based education settings. This reflection affirmed aspects of the participants current practice that was in keeping with the model, and also provided them with information about their practice that they could develop to enhance children’s participation. Conclusions included the key considerations that have to be made when supporting educators in the development of their practice, and recommendations for the future use of the model.
### Programme Overview – Wednesday 6 July 2011

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<tr>
<th>Time</th>
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<th>Stream B Room T204</th>
<th>Stream C Room T101</th>
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<td>Transitioning through life: Choices and challenges in changing times</td>
<td>Reading acquisition</td>
<td>Parenting</td>
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<td>Convenor: C Fletcher-Flinn</td>
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<td>Teachers talk transition</td>
<td>Disentangling the Nuances of Contextual Factors Associated with Developing Phonological Awareness Skills in Preschool Children</td>
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<td>Memory</td>
<td>Mechanisms of adaptive parenting: Findings from an Australian study of adaptation from pregnancy through early parenthood</td>
<td>Assessing the moving target of literacy development: Evaluating indicators of literacy skill development in Australasia</td>
<td>Adolescent Well-Being &amp; Conflict</td>
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KEYNOTE SPEAKER

MAKIKO NAKA

Chair: Claire Fletcher-Flinn

CHILD WITNESS TESTIMONIES IN JAPAN: RESEARCH AND CASES

ABSTRACT

Traditionally, the Japanese government and justice system deemed a family is inviolable, and thus refrained from intervening into family matters. However, as the number of reports on child abuse has increased by 500% during the last decade, they are now obliged to do something. One of possible actions is to prosecute alleged abusers. Nevertheless, it is not easy for a child to stand in court. Looking back on previous cases, children were usually thought to be competent (and thus admitted to testify), but their testimonies were later dropped due to its unreliability. As a developmental psychologist, I was asked to be an expert witness and scrutinize child testimonies. Not surprisingly, in many cases, I found poor interviewing techniques deteriorated children’s credibility. In my talk, I will present some cases demonstrating how children were interviewed by naive parents/professionals, and outline the issues involved. Then, I will discuss some experiments conducted in my laboratory. Much research has shown that children of especially young ages are easily misled by suggestions and biased questions. Compatible with this research, we showed not only young children, but also elementary school children, junior high school children, and even undergraduates were affected by “soft suggestions”, and “helpful questioning.” I will present our on-going project to change methods of forensic/investigative interviewing by the justice system. The project provides training in interviewing techniques to social workers working for children. So far, approximately 300 professionals have taken the course and started using these techniques. In addition, we have established a guide for forensic interviewing by the National Police. The training is based on NICHD protocol (Lamb et al., 2007) but making some modifications for the Japanese language. For example, Japanese verbs have many inflections, i.e., “hanashi (talk)-te–kudasai” (imperative), and ‘soft’ forms of imperatives such as “kure-masu-ka”, “kure-masen-ka”. Before and after the training, we asked trainees to conduct a mock interview and send it to us so that we can compare the differences as well as the effectiveness of each question type on eliciting information from children. So far, the results showed the training increased children’s free narratives, and their responses were wording dependent.

BIOGRAPHICAL SKETCH

Professor Naka is a former chairman of the Psychology Division, and a board member of the Faculty of Letters at Hokkaido University. Her research interests are in human cognition in natural and legal contexts, including mother-child conversation on events, eyewitness memory in children and adults, autobiographical memory, and interviewing techniques with children and adolescents. For more than 40 times, she served as an expert witness on eyewitness testimony and has carried out research in laboratory and legal settings on related topics. She is a founding member of the Japanese Society for Law and Psychology and a past vice-president of the society. She has been on the board committees of the Japanese Psychological Association, the Japanese Society for Developmental Psychology, and the Japanese Society for Cognitive Psychology. She served as the Chief Editor of the Japanese Journal of Developmental Psychology, Psychology World, and is on the Editorial Board of Japanese Psychological Research, the Japanese Journal of Psychology, the Japanese Journal of Cognitive Psychology, Psychologia, and the Journal of General Psychology, and served as a special Editor of the International Journal of Police Science and Management. She is an Associate Member of the Science Council of Japan. She was a member of the committee on legal age for the Ministry of Justice, the Chair of the committee on investigative interviews with child victims at the National Police Agency, and a board member of the research committee on the improvement of suspect interviews at the National Police Agency. In addition to her membership on five Japanese Psychological Associations, she is a member of the American Psychological Association, Psychonomic Society, the American Psychology and Law Society, and the European Psychology and Law Society. To date, she has published over 100 book chapters and journal articles. She has supervised eight PhDs, 17 Masters, and more than 50 Undergraduate theses to completion. She contributed to the development of a guide on child interviews at the National Police Agency, and trained more than 300 social workers on forensic interviewing.
CHILDREN’S PERFORMANCE AND EXPERIENCES IN LEGAL CONTEXTS

FIONA JACK (University of Otago)
fiona@psy.otago.ac.nz

Chair: Kay Bussey

This is the first in a set of two symposia focusing on research that examines children’s performance and experiences in situations of forensic relevance. The research presented in this session examines children’s interpretations of adults’ repeated questions, children’s descriptions of their own and others’ feelings in negative situations, children’s and adults’ face recognition, and children’s and young people’s experiences as participants in family court proceedings. Using illustrated vignettes, Howie, Lechowicz, and van Golde examined the effects of age, overt pressure, and pragmatic ability on children’s interpretations of adults’ repeated questions. Their results underscore the importance of considering children’s interpretations of adults’ meaning, not only in forensic contexts, but also in educational and other situations.

Naka, Koyama, and Futakuchi studied children’s descriptions of their own and others’ feelings in negative situations, with participants recruited from both deprived and non-deprived family backgrounds. They discuss the implications their results have for investigative interviewing. In a series of studies, Sugimura compared children’s and adults’ face recognition. Sugimura manipulated whether the target of the recognition test was a bystander or a main performer, and whether the target wore a disguise during a witnessed event. Both the developmental and applied implications of the results are discussed. Using qualitative methods, Gollop and colleagues examined children’s views of their experiences of family court procedures and of dealing with legal professionals. This research emphasises the role of children and young people as active participants in their family transitions.

CHILDREN’S INTERPRETATIONS OF ADULTS’ REPEATED QUESTIONS: IMMATURE MISINTERPRETATION OR PRAGMATIC SOPHISTICATION?

PAULINE HOWIE, MERYN LECHOWICZ, & CELINE VAN GOLDE
pauline.howie@sydney.edu.au

It is well established that, in everyday and educational as well as forensic contexts, when adults ask children the same question twice, they are likely to elicit inconsistent responses, particularly in very young children. In addition to memorial and metamemorial factors, social and pragmatic factors are likely to affect the consistency and accuracy of children’s reports of their retrieved memories. It has been generally assumed that children change their answers in an attempt to comply with a (mis)perception that the adult is dissatisfied with the first answer and expects them to change. However Howie et al. (2007) found in a vignette study that young children were paradoxically less likely than older children to express the inference that question repetition implied adult dissatisfaction. Regardless of age, however, children were more likely to draw this inference when the adult expressed overt dissatisfaction (high pressure context). The present study sought to replicate this finding, and to determine the role of pragmatic ability. Children between 3 and 8 years (N=211) were shown illustrated vignettes in which a child was asked a repeated question by an adult who showed either overt dissatisfaction with their first answer, or a neutral response. Participants were asked open and forced-choice questions about the motives for the adult’s question repetition. Pragmatic ability was measured by the Pragmatic subscale of the Comprehensive Assessment of Spoken Language, as well as two measures developed for this study, which sought to combine the strengths of existing methods and theories. Standardized vocabulary and syntactic tests were also administered. Replicating the earlier finding, “first-answer-unsatisfactory” interpretations of repetition and response change were more frequent in older than younger children, and when pressure was high than low. This suggests that, particularly in the absence of overt pressure, shifting in young children is unlikely to be due to conscious “first-answer-unsatisfactory” inferences. Regression analyses showed that, controlling for age and language ability, greater pragmatic competence predicted greater likelihood of offering these interpretations, regardless of the presence of overt pressure. “First-answer-unsatisfactory” interpretations of repetition therefore appear to reflect pragmatic sophistication rather than simple misinterpretation of adult intention. These findings point to a complex role of social cognition and pragmatic awareness in children’s responses to repeated event recall questions, and emphasise the need for investigative interviewers to be alert to the ways in which individual children interpret their communications.
CHILDREN’S DESCRIPTION OF FEELINGS OF OTHERS AND OF THEIR OWN IN NEGATIVE SITUATIONS

NAKA MAKIKO, TOSHIKAZU KOYAMA, & YUKINORI FUTAKUCHI
mnaka@let.hokudai.ac.jp

A child may tell an adult that he saw a boy pulling a girl’s hair. It could be play, teasing or harassment. The adult then may ask the child what he thinks the girl had felt or how he felt about the girl. The child’s descriptions on the girl’s feelings or his own feelings may give a clue to adult’s understanding of what happened. The purpose of this study was to investigate how a child describes others’ feelings and their own feelings in situations such as someone being coerced to play, being hit by a ball, and so on. Developmental changes and differences in children’s background (i.e., non-deprived or deprived) were also studied. A total of 171 children, 3 to 12 years of age, participated in the study. One hundred and twenty-seven children were from non-deprived families and 44 children had a deprived background. Children were presented with ten vignettes, in seven of which negative things happened to puppets as described above. After being presented with each vignette, children were asked to describe puppets’ feelings and their own feelings. Kindergarteners, the first year grade children, and deprived children were tested individually, whereas the second, fourth, and sixth grade children were tested in group. We expected that children would describe feelings with emotion words such as sad, scared, unhappy, etc. However, responses actually included not only emotion words but also (1) descriptions on situations and actions (e.g., A boy was pulling her hair), (2) telling intentions, wish, or hope for some actions (e.g., She wanted to get away), and (3) asking questions for the reason why it happened or what he or she should do (Why did he pull her hair? Why didn’t she go away?) Tendencies are the same for both puppets’ feelings and for their own feelings but “Don’t Know” responses were greater for own feelings, suggesting telling about one’s own feelings is more difficult than telling about others’ feelings. Developmental changes as well as gender differences were found showing that older children used more emotion words and gave more information on situations and actions than younger children, and girls gave more information on the feelings and on situations and actions. Furthermore, those who had deprived background gave fewer descriptions of emotions compared to those from non-deprived families. Implications for investigative interviewing are discussed.

YOUNG CHILDREN’S EYEWITNESS MEMORY: RECOGNITION AND IDENTIFICATION ACCURACY FOR BystANDERS AND DISGUISED FACES

SUGIMURA TOMOKO
sugitomo@fukuoka-edu.ac.jp

When young children see a complex, real-life event in which a number of people appear, how accurately can they remember the persons involved in the event? Most previous eyewitness studies of children have used live or videotaped events in which only one main person performed the target event. However, in real-life scenes of crime, it is not unusual for two or more people to commit a crime (e.g., a main performer carries a weapon, and a bystander assists). In addition, criminals often change their hairstyles and wear caps or wigs before or after they commit a crime. In this session, experimental studies examining recognition and identification accuracy for bystanders and disguised faces are reported. (1) Difficulty among young children in remembering bystanders: Five- to 6-year-olds and adults watched a live amusement show event performed by a group of four people: two main performers and two bystanders. Approximately one month after seeing the event, the participants were questioned about what the show was like and given a recognition/recall test and facial identification test regarding the bystanders. Results showed that half of the children failed to recognize the presence of bystanders who were not centrally involved in the event, while all of the adults could recognize the presence of bystanders. These results are discussed from the aspect of young children’s omission errors related to the failure to encode peripheral information. (2) Recognition accuracy of young children for a disguised face and a bystander: Three- to 6-year-olds watched a live event in which a female storyteller (main target) and a male helper (bystander) presented a picture-card story in either a disguised face (DF) or normal face (NF) condition. In the DF condition, the appearance of the main target was different from the facial photo used in a lineup (i.e., change in hairstyle and no eyeglasses). Approximately 24 hours after seeing the event, participants were given a recognition/recall test and facial identification test regarding the main target and the bystander. Results showed that under the DF condition, few
participants correctly recognized the main target, and the recognition accuracy for the main target was lower than that for the bystander. In addition, approximately 30% of the children did not remember the presence of the bystander. These results are discussed in relation to development of facial processing and practical aspects of interviewing techniques.

CHILDREN’S VIEWS OF FAMILY COURT PROCEEDINGS AND LEGAL PROFESSIONALS
MEGAN GOLLOP
megan.gollop@otago.ac.nz

In the last decade, international attention has focused on the role that children play in the resolution of family law disputes between their parents or guardians. This has been driven by a child’s rights approach based on Articles 12 and 13 of the United Nations Convention on the Rights of the Child and by research evidence showing that children’s views can helpfully contribute to the decision-making processes regarding parental separation and guardianship issues or care and protection concerns. When the Care of Children Act 2004 replaced the Guardianship Act 1968 the opportunity was taken to elevate the importance of children’s views in private law proceedings. New Zealand now leads the world in its statutory requirement that a child must be given reasonable opportunities to express their views on matters affecting them, and that any views the child expresses (either directly or through a representative) must be taken into account. Children’s views are primarily ascertained and reported to the Family Court through lawyer for the child (an independent lawyer appointed to represent a child), but children’s engagement with other professionals such as court-appointed report writers and Judges also occurs. In the care and protection context, children also have significant involvement with social workers. This paper will discuss the challenges involved in ascertaining children’s views about their family situations and their participation in decision-making processes. It will draw on data from several qualitative socio-legal research projects undertaken in New Zealand that ask children directly about their experiences of family law disputes and Family Court processes and professionals. This research has been designed to explore the experiences of children and young people using a theoretical framework that constructs children as active, competent participants rather than the passive recipients of family transitions and family law processes. The key emphasis of this research has been to highlight the visibility and voices of children and young people by reporting on their experiences and influencing changes to legal policy and practice.
TRANSITIONING THROUGH LIFE: CHOICES AND CHALLENGES IN CHANGING TIMES

MARG KENDALL-SMITH (University of Otago)
marg.kendall-smith@otago.ac.nz

As individuals progress through life they are likely to experience a range of complex choices and personal challenges. In changing times individuals are being held personally responsible for their own successes and failures. The presenters in this symposium question these dominant discourses, challenge passivity and encourage critical reflection about our practices and the values and philosophies underpinning such actions. A range of issues are explored addressing some of the issues and challenges that may arise at different points of transitions. The four presentations engage with the following topics. Irving looks at the contribution career education might play in the promotion of social justice as it prepares students for their transition from secondary school to the ‘real world’. Field focuses on ‘second chance’ learners in the process of returning to learning in formal settings and the challenges such students might experience. Jameson is concerned with the challenges and opportunities – the expectations and realities experienced by adult students returning to tertiary study after an absence of ten years or longer. Finally Kendall-Smith examines an andragogical approach to life-long learning as pertaining to ‘mature’ age learners. Each of the presenters will pose a series of key questions for discussion.

PREPARING SECONDARY STUDENTS FOR TRANSITION INTO THE ‘REAL WORLD’: WHAT ROLE CAN LIFE/CAREER EDUCATION PLAY IN THE PROMOTION OF SOCIAL JUSTICE?

BARRIE A IRVING
irvba060@student.otago.ac.nz

Increasingly the concept of ‘career’ is changing to reflect new times. This is highlighted in the Ministry of Education document: ‘Career Education and Guidance Guidelines for New Zealand Secondary Schools’. Here it clearly states that: ‘Everyone has a career’. Career is now seen to be all-encompassing, no longer restricted to labour market participation or progression in employment. Therefore it might be more aptly understood as a life/career. However, whilst it is suggested that it is the individual who constructs, gives meaning to, and enacts their own life/career, this does not occur in isolation of the wider social, political and economic context. This has significant implications for how career education is conceptualised, developed, and delivered in secondary schools. Career education occupies a privileged place as it straddles the school–post-school divide, seeking to prepare young people for successful progressions into the ‘real world’, a world in which compulsion is ostensibly replaced by individual choice. From a transition perspective career education can play an important role by helping students gain critical insights into, and an understanding of, the multiple ways in which social, political, and economic discourses position and shape concepts of ‘self’, career, opportunity, and justice, both at an individual and collective level. Thus career education has the potential to provide a foundation for personal and social growth. Yet career education is primarily focused on personal development, emphasising the individual’s need to acquire skills, competencies, behaviours and qualities, often framed by employment and employability concerns. If this remains the case, career learning is at risk of becoming a technical-rational process, actively deflecting attention away from broader social justice concerns and the notion of a life/career. The underlying issues to be addressed therefore relates to whether career education can facilitate meaningful transitions by accommodating diversity, being culturally sensitive, politically dynamic, and socially just. In this presentation I will share some key findings from my PhD research which is concerned with how social justice is understood in New Zealand secondary schools. After presenting my own understanding of social justice, I will then outline the multiple ways in which my participants understand this concept of social justice, and how they see it ‘fitting’ within their career education practice. I will then discuss the challenges and contradictions that have emerged from the findings, and finally will pose key questions for consideration.
LOOKING BACKWARDS, MOVING FORWARDS: A SERIES OF FORTUNATE EVENTS!

JANE FIELD
jane.field@op.ac.nz

As a Career Practitioner at Otago Polytechnic, I work alongside clients who are, usually, unsure of their future direction. This is ‘Career Planning’ and assists clients to reflect on their past experiences, develop an understanding of themselves; their skills and abilities, and to gather information needed in determining possible pathways/qualifications that fit that particular person. My primary concern is to ensure that my clients make decisions that they themselves are comfortable with, and to provide the appropriate level of support. An academic pathway can often mean the client becoming a student at Otago Polytechnic. In my presentation, I will be focussing on those students who might be categorised as ‘second-chance’ learners; those who may have been labelled ‘school-failures’ and/or may have not studied for a number of years. Such students may have consistently been told that they would never make anything of their lives and eventually come to believe that. This is a situation that I have experienced myself. Although I ‘failed to achieve’ at grammar school and Technical College, and may well have been labelled an ‘educational failure’, twenty years on I was accepted onto a Post Graduate Diploma. The following year, I gained a Masters degree. This, plus ten years experience teaching on Foundation Studies, led me to question what motivators enable these changes to happen. Drawing on qualitative interviews with a number of such students at Otago Polytechnic, I will share with you their stories; I will look at their experiences of education; explore what may have changed in their lives to bring about this belief in their own potential to achieve academic success, and finally outline the challenges they have overcome. This might also have relevance for others in this particular group. Presenting such stories not only contributes to a greater understanding of the challenges but also helps identify the barriers that those who ‘failed at school’ might encounter. Moreover stories such as these often highlight the interplay between race, gender and socioeconomic class, and the multiple ways in which these can impact on academic attainment and educational achievement, bringing into question the extent to which ‘school success’ should act as a marker of potential. Finally, the stories contribute to a growing body of evidence which demonstrates that ‘learning and returning’ is a fluid process that cannot be measured solely on the basis of age and stage.

TRANSITION TO UNIVERSITY AFTER COMPLETING UNDERGRADUATE STUDIES MORE THAN A DECADE AGO: CHALLENGES AND OPPORTUNITIES

MADGERIE C JAMESON
Madgene.Jameson@sta.uwi.edu

There is significant literature examining the experiences of undergraduate students as they transition from high school to university (Barefoot, 2000; Bojuwoye, 2002; Erickson & Strommer, 1991; Horstmanshof & Zimitat, 2007; Kuh, 2005). However, there is very little explaining the experiences of graduate students who return to university after completing their undergraduate studies over a decade ago, before 2001. Much of the literature speaks about the dichotomy between students’ expectation and the reality of university (Johns, 1993; Twege, 2001). This paper seeks to fill the void in our understanding of how mature students experience their graduate programme and how those experiences impact on their transition and engagement. To address the issue I use a phenomenological perspective to understand how 12 graduate students’ ages 40-71 years studying Education construct the meanings of the issues that impact on their engagement and the support structures that facilitate their transition to university one decade later. Participants took part in a focus group discussion and discussed: reasons for returning, their expectations about university learning and changes in their expectations over the years; and whether incongruities between expectations and reality affected their transition to university.
The comment above is constructed from a common sentiment gathered from my research involving adults wishing to learn more about ‘others’ prior to homestay hosting tertiary international students (Kendall-Smith, 2001). Grove (1982) and later, King and Huff (1997) considered the value of prior information regarding the values and behaviour of different cultural groups as being beneficial. However, knowing facts and developing awareness and understanding are not necessarily synonymous. My belief that our primary referencing and assumptions developed through our lived experience needs to be challenged and critically examined in order to initiate changes in our understanding (Kendall-Smith 2010) is reinforced by Brookfield (1987) who suggests that critical thinking allows us to ask questions and to become open to new ideas. In considering critical reflection and reflective practice for older learners my contribution to this symposium will offer ideas from others in the field as to ways of engaging mature learners in order to maximise the opportunity for developing greater awareness and understanding of ‘others’ (Dewey, 1939; Mezirow, 1990; Moon, 2000; Rogers, 2001 and others). The construction of a ‘learning module’ created for adult learners engaged in homestay hosting in New Zealand will be discussed and some perceptions of the value of such an exercise to those learners, will be shared (Kendall-Smith 2010).
Reading is an important skill that has received much research attention. This symposium considers issues pertaining to how children learn to read. Three of the papers report studies that address reading-related factors purported to support beginning reading. Wilson and McKay compare the phonological awareness and letter-sound knowledge of preschool precocious readers and normal progress primary school-aged children matched on reading level, and preschool nonreaders. Their results show that for the development of precocious reading, phonological awareness and letter-sound knowledge below the matched reading level is sufficient. Arrow reports a study in which she trained preschool children with no formal literacy instruction to read or spell eight words. Comparisons were made between groups of children with low letter-name knowledge, high letter-name knowledge, and children with high letter-name and some letter-sound knowledge. The results show no difference between the latter two groups in learning to read. However, those with some letter-sound knowledge were better at learning to spell the words. Nicholson explores the cognitive cultural capital that children bring with them as they enter school, and their progress over the first year with regard to reading and spelling. The behaviours that were measured included oral language, knowledge of letter-names and letter-sounds, phonological awareness, and invented spellings. There was a strong positive correlation between these entry skills and pseudoword reading. The results underscore the need to acknowledge the importance of literate cultural capital and the need for differentiated instruction. In the fourth paper, Fletcher-Flinn and Thompson review the published research evidence for the efficacy of phonics and text-centred approaches to teaching beginning reading, including meta-analyses and international comparisons of children receiving different types of teaching. They raise some methodological issues about the evidence presented with regard to the teaching goals and reading outcome measures of the two approaches, e.g., word accuracy and speed of reading text. Consideration of these issues and long-term effects on word reading are important when reviewing research, and formulating evidence-based best practices.

The Phonological Awareness and Reading Abilities of Preschool-Aged Precocious and Normal Progress Readers

Kathryn Wilson & Michael McKay
kjawls001@myacu.edu.au

This study sought to explore whether phonological awareness and grapheme-phoneme knowledge were necessary for reading acquisition using three groups of children. These were: preschool-aged precocious readers (assessed as having a reading ability of at least Year 1 before commencing formal reading instruction, n = 15, 10 boys and 5 girls; chronological age M = 4 years, 8 months, SD = 5 months); aged-matched nonreaders (n = 15, 10 boys and 5 girls; chronological age M = 4 years, 9 months, SD = 7 months); and reading ability matched primary school readers (n = 15, 10 boys and 5 girls; chronological age M = 8 years, 8 months, SD = 1 year, 5 months). An analysis of variance found significant differences existed between groups on all measures of phonological awareness. Subsequently, independent samples t-tests were carried out to compare the means between: (1) precocious readers and primary school readers, (2) precocious readers and nonreaders, and (3) non-readers and primary school readers. The primary school readers were significantly better on rhyme and phoneme deletion beginning sounds than the precocious readers. However, the precocious readers were significantly better on rhyme and phoneme deletion beginning sounds than the primary school readers. The primary school readers were significantly better on rhyme and phoneme deletion beginning sounds than the nonreaders. Lastly, the primary school readers were significantly better on all phonological measures compared with the nonreaders. Precocious and primary school readers were also administered a pseudoword task that consisted of rimes present and not present in existing words. These were: phonological awareness and grapheme-phoneme knowledge (letter-sounds that were incompatible with the acrophonic principle), and digraphs that could not be pronounced by giving a name of the first letter contained within the digraph. It can be concluded that phonological
awareness may develop as result of reading acquisition but is not a necessary requisite, nor is explicit knowledge of letter-sounds.

BEGINNING READERS’ USE OF LETTER KNOWLEDGE TO READ AND SPELL TAUGHT SIGHT-WORDS AND UNKNOWN WORDS

ALISON ARROW
a.w.arrow@massey.ac.nz

Children at the very beginning of learning to read and spell in accurate ways are subject to a great deal of theorising. The acquisition of the alphabetic principle, encompassing phonemic awareness and print alphabet knowledge, is considered to be the important skill that children acquire. There is a great deal of research on phonemic awareness, but less on how alphabet knowledge is made use of when trying to read or spell. In this study 64 children, who had not had any formal literacy instruction and were aged from 54 to 58 months of age, were taught to either read or spell eight words derived from a set of three consonants and five vowels. These taught words (sight-words) were post-tested alongside eight generalisation words (unknown words) derived from the same three consonants and five vowels. Children's letter-name and letter-sound knowledge prior to the teaching was used to group children. Comparisons were made between children with low letter-name knowledge (LN M = 3.27, n = 26), children with letter-name and letter-sound knowledge (LN M = 13.00, LS M = 3.83, n = 24), and children with high letter-name knowledge but no letter-sound knowledge (LN M = 14.00, n = 14). The results indicated that children used letter-name knowledge to read and spell sight-words, although having letter-sound knowledge improved accuracy compared to children with low letter-name knowledge. The results also indicated that children with letter-sound knowledge were better able to accurately attempt spelling unknown words, but not to read them. The results will be discussed in terms of the differential influences of letter-name and letter-sound knowledge on reading and spelling acquisition.

WHO IS THIS FOR? THE CASE FOR TEACHING BEGINNER READERS DIFFERENTLY

TOM NICHOLSON
t.nicholson@massey.ac.nz

The purpose of the study was to explore the relationship between literate cultural capital at school entry and children’s progress in reading, spelling, writing, strengths and difficulties in behaviour, and motivation to read. This term refers to reading related factors at school entry that support early reading acquisition. These cognitive entry behaviours vary considerably among children when they first attend school. These behaviours include oral language (a reflection of interactions in the home), knowledge of letter names and sounds (a reflection of exposure to ABC books and games), the ability to write using invented spellings, and sensitivity to phonological structure of spoken words (a reflection of interactions at home that encourage rhyming and alliteration such as I Spy). Some children (especially from low-income backgrounds) will start school with very low levels of these skills and are environment dependent in that they are unlikely to be able to teach themselves to read. In contrast, other children will start school with high levels of these skills (typically children from more advantaged backgrounds) and will be learner dependent in that it is likely they will be able to teach themselves to read simply from exposure to reading and practice in reading. The participants were 114 5-year-olds attending different schools in different socioeconomic areas. Assessments included alphabet knowledge, phonemic awareness, invented spelling, writing, decoding, word recognition, strengths and difficulties in terms of behaviour, and motivation to read. The results showed that children with good reading and writing skills had high levels of literate cultural capital. The opposite was the case for children with poor reading and writing skills. The study showed strong correlations of entry skills with acquisition of letter-sound rules needed for reading and spelling, especially as assessed by pseudoword decoding which correlated very highly (r = .90) with word reading skills, and spelling. The results have practical implications for education in that they underscore the need for children (especially those from disadvantaged backgrounds) to start school with a) a solid foundation of entry skills that will enable easy and rapid acquisition of literacy and/or to receive at school b) differentiated instruction, that is, instruction suited to whether they are learner or environment dependent.
METHODOLOGICAL CONSIDERATIONS IN MAKING COMPARISONS BETWEEN TEACHING APPROACHES TO BEGINNING READING

CLAIRE FLETCHER-FLINN & G. BRIAN THOMPSON
claire.fletcher-flinn@otago.ac.nz

Most children learn to read no matter how they are taught. However, different theoretical positions attempt to provide convincing evidence that one method of teaching beginning reading is better than another. This review critically discusses the research evidence for the efficacy of phonics and text-centred approaches. The published data that is considered includes large-scale reviews and meta-analyses, as well as particular research on whether different types of teaching result in children reaching equivalent levels of beginning reading. The conclusion reached is that the relative rate of learning when making comparisons between teaching methods depends on the goals of the instruction, and conceptually relevant methodological considerations, such as which reading outcomes are measured, e.g., word accuracy, speed of text reading. An important issue raised is whether there are any long-term effects of different types of teaching on word processing. Consideration of these methodological issues is central in reviewing research on reading acquisition, as well as in formulating policy for evidence-based best practices.
PARENTING

FATHER-CHILD RELATIONSHIPS OF SCHOOL-AGE BOYS WITH ADHD SYMPTOMS

LOUISE KEOWN (University of Auckland)
l.keown@auckland.ac.nz

Despite growing evidence for fathers’ significant and unique influence on normative development, fathers remain
underrepresented in child psychopathology research. In particular, little is known about the parent-child relationships
of fathers of children with Attention Deficit Hyperactivity Disorder (ADHD) and the degree of difficulty experienced
by these fathers in managing challenging child behaviours. This paper presents findings on the parent-child relationships
of 85 fathers of hyperactive/inattentive and comparison boys who were followed up from early to middle childhood.
Children were initially identified for the study at age-4 years on the basis of questionnaire and interview ratings of
hyperactivity/inattentiveness. At time 2 (age 6-8 years), boys were grouped according to their scores on the ADHD
Rating Scale-IV (DuPaul et al., 1992), as completed by fathers, mothers and teachers. Fathers and mothers were visited
at home to obtain interview and questionnaire data about their child’s behaviour, parent-child relationships and their
parenting challenges. Parents’ perceptions of closeness and conflict in the parent-child relationship were measured
using the Child-Parent Relationship Scale (CPRS; Pianta, 1992). Parenting practices and parenting role satisfaction were
also assessed with the Parenting Scale (PS; Arnold et al. 1993) laxness and overreactivity scales, and the Parenting
Satisfaction Scale (PSS; Guidubaldi & Cleminshaw, 1994). Fathers of boys with ADHD symptoms reported higher rates
of father-child conflict, greater use of overreactive parenting strategies, and less satisfaction with their parenting than
fathers of comparison boys. Across both groups the most commonly reported fathering challenges were child temper
outbursts and sibling conflicts, while fathers of boys with ADHD were more likely than comparison group fathers
to mention arguing, disobedience, and not listening as child behaviours they found difficult to manage. These results
provide some insight into specific child behaviour management difficulties that could be targeted in behavioural parent
training programmes for fathers of children with ADHD. The developmental implications of these findings will be
discussed, including the potential role played by father-child conflict and overreactive paternal parenting in the long-
term outcomes of children at risk for ADHD.

SKYPE-PARENTING ACROSS HEMISPHERES

MAX GOLD (University of Otago)
max.gold@otago.ac.nz

When parents separate, it is sometimes difficult for children to remain in direct contact with relatives, especially when
they live across the other side of the world. This is especially so when the child is young, and the relatives are members
of the visiting parent’s extended family, in this case the father. Yet such contact can be important in providing the child
with a sense of identity, importance and place in the world. This paper discusses the writer’s experience of helping
the parents of a four-year-old boy negotiate a visit with his father, from New Zealand to his father’s family in Eastern
Europe. It discusses the parents’ perspective of organising and conducting the visit, and the child’s report of the visit.
The writer identifies factors which appeared to contribute to the success of the visit, as well as challenges the parties
encountered along the way. It is important to document this experience to inform professionals such as legal counsel,
psychologists, counsellors and others, who may have a role in guiding parents towards sensible ways of enabling
children to remain in contact with distant extended family.
An Evaluation of an Online Self-Directed Parenting Intervention for Families of Children with Early Onset Conduct Problems

CASSANDRA DITTMAN, MATTHEW R. SANDERS, SUSAN P. FARRUGGIA, & LOUISE J. KEOWN (University of Auckland)
c.dittman@auckland.ac.nz

Only a small proportion of parents access evidence-based parenting interventions suggesting the need for alternative delivery contexts to improve their accessibility and population reach. Recent consumer preference data indicates that approximately a quarter of parents identify web-based delivery as their preferred program format. The presentation will describe an online version of the well-evaluated Triple P – Positive Parenting Program and present post-intervention findings from a randomised controlled trial of the program. Triple P Online is an 8-module highly interactive internet program comprising features including video demonstrations of parenting strategies and case scenarios, goal setting, an individualised workbook, podcasts of module content, and text message summaries of weekly goals. The project aimed to examine whether the internet program improves outcomes for families with a child aged between 3 and 8 years showing disruptive and oppositional behaviour in comparison to a self-directed workbook program. An additional goal of this project was to examine whether the interactive and engaging nature of the internet program resulted in greater compliance, completion rates, and parent satisfaction in comparison to the self-directed workbook program. 192 participants were randomly assigned to receive either Triple P Online (N=97) or a self-directed workbook program (N=95). Parents completed questionnaire measures of child behaviour, parenting style and confidence, risk of child maltreatment, and parental adjustment and relationship quality at pre- and post-intervention. Parents are in the process of completing six-month follow up assessments (due for completion in April 2011). At post-intervention, no significant differences were found between the internet and workbook conditions on parent reports of child behaviour, parenting, parental functioning, or parent satisfaction with the program. Both interventions produced improvements on almost all outcome measures. Large effects were found for child behaviour, parenting style and parenting confidence, and medium to large effects were produced for inter-parental conflict over childrearing and levels of parental stress. Small effects were found for parental risk of child maltreatment. These results suggest that the internet is a viable and effective alternative delivery modality for providing parenting support. The findings will be discussed in relation to the potential for online interventions to greatly improve the accessibility of evidence-based parenting interventions, particularly for certain groups of hard-to-reach families.

Sleeping Through the Night: A Community Survey of Parents Opinions

JACQUELINE M.T. HENDERSON, GABRIELA MOTOI, & NEVILLE M. BLAMPIED (University of Canterbury)
jacki@maximdesign.co.nz

By the end of the first year of life the majority of infants are sleeping through the night, whereby the longest duration of sustained sleep occurs during the nocturnal period. Researchers have employed a wide variety of predetermined criteria to define whether or not an infant is sleeping through the night. However, the majority of researchers have failed to provide a rationale for their definitions and the social validity of the few existing definitions is questionable. One approach to establishing social validity would be to investigate parental definitions of sleeping through the night. Accordingly, the aim of the current study was to determine how parents’ conceptualized the nocturnal period, and parental opinions on the length of time that best defines sleeping through the night. Four hundred and seventeen parents/caregivers were recruited from six different suburban shopping centres and were asked to complete an interview on perceptions about infant sleep. Data on socio-familial characteristics was also gathered. Participants (mean age 31 years) were primary caregivers of infants under the age of two, and were representative of middle and high socioeconomic status families. Parents reported that the initial onset time for sleeping through the night should begin at 20:03h (SD=1.21) and terminate at 06:00 h (SD=1.42), with 9.58 hours (SD=2.37) defined as the number of hours an infant should sleep uninterrupted. The majority of parents (82.5%) did not agree that an influential criterion of sleeping from 24:00hours to 05:00hours (Moore & Ucko, 1959) defined sleeping through the night. This is the first study to report on parental definitions of sleeping through the night. Parents reported that infants should sleep for an uninterrupted period of 9.6 h at night and defined the nocturnal period as beginning at 20:00hours and terminating at 06:00hours. Parental opinions appear to be incongruent with traditional accepted definitions, specifically Moore and Ucko’s (1957) 5hr criteria for sleeping through the night. These differences between parental and researcher definitions will be further examined within the context of parents appropriate expectations of infant sleep, and infants developmental capabilities for the longest self-regulated sleep period.
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(Poster Abstracts available online)
Children's performance and experiences in legal contexts 2

Fiona Jack (University of Otago)
fiona@psy.otago.ac.nz

Emily Crawford (Chair)

This is the second in a set of two symposia focusing on research that examines children's performance and experiences in situations of forensic relevance. The research presented in this session examines the use of drawing as a tool to facilitate children's recall, the effect of cross-examination on children's reports of false events, and ways of facilitating children's truthful disclosures of adults' transgressions. Crawford, Gross, and Hayne examined the importance of the interviewer's verbal instructions in situations where drawing is used as a tool to facilitate children's recall. They manipulated the specific instructions that children were given when they were asked to draw and tell about a novel event. Their results have important implications for interview techniques in both clinical and legal settings. Hand and Bussey coached children to give false reports about an event that did not occur, and then examined the effect that cross-examination style questioning had on children's false reports. Their findings enhance our understanding of the role that cross-examination plays in obtaining children's testimony. In another study, Bussey compared the effects of promising to tell the truth, agreeing to tell the truth, and simply being asked to tell the truth on the truthfulness of children's reports about a transgression they had witnessed. Bussey also examined whether children's conceptual understanding of truth and lies predicted truth-telling. The implications of the results for methods of facilitating truthful disclosures from children are discussed.

Drawing-based interviews: the effect of interviewer instructions on the accuracy of children's reports

Emily Crawford, Julien Gross, & Harlene Hayne
emily.crawford@psy.otago.ac.nz

Under tightly controlled interview conditions, children who are explicitly asked to draw about a past experience report large amounts of accurate information. Under less than ideal interview conditions, drawing can reduce the accuracy of children's reports. In contrast to research settings, in real-world settings, children are sometimes provided with drawing materials, but are given no explicit instruction about what to draw. Here, we investigated how interviewers' instructions during a drawing interview might affect the content and accuracy of children's reports. To do this, 5- and 6-year-old children took part in a novel event involving a boat trip around the local harbour; after the event, children were asked to tell the interviewer about the trip. Some children were provided with drawing materials; of these children, some were specifically instructed to draw about the trip, while others were given no explicit instructions about what to draw (i.e., they could draw freely). Children who were given no explicit instructions about what to draw made more errors than did children who were specifically asked to draw about the trip, or children who simply told. These findings have important implications for interviews with children in clinical and legal settings.

The influence of cross-examination on children's false reports

Rhiannon Hand & Kay Bussey
rhiannon.hand@mq.edu.au

Cross-examination has been reported to be the most distressing aspect of the legal process for child witnesses (Eastwood & Patton, 2002). Despite the distressing nature of cross-examination, defense lawyers claim that its use is justified as it uncovers the truth from witnesses. Research has shown, however, that not only do children become less accurate when interviewed with cross-examination, some children also become less truthful (Hand & Bussey, 2010; Zajac & Hayne, 2003, 2006). Past research, though, has only assessed the impact of cross-examination on children's truthfulness of events they have witnessed. In some cases in response to parental coaching, however, children may falsely allege abuse which did not actually occur. This study investigates the impact of cross-examination on the truthfulness and accuracy of children's reports when they have been coached to falsely allege a transgression.
Participants were 80 kindergarten students (M = 6 years, 0 months) and 79 grade 3 students (M = 9 years, 0 months) recruited from middle-class schools in Sydney. Children participated in a ‘Healthy eating lesson’ with Researcher 1. Half of the children witnessed Researcher 1 rip a special carrot poster, while the other half did not. Half of the children were then coached to provide a false report by Researcher 2. Those who witnessed the transgression were coached to say that they did not witness the transgression, while those who did not witness the transgression were coached to say that they did. Two interviewers then interviewed the child about the lesson. Interviewer 1 used open-ended questions followed by direct-examination questions. Interviewer 2 questioned half of the children with a second direct-examination while the other half were cross-examined. Preliminary data analyses revealed that children interviewed with cross-examination in Interview 2 showed more changes in the accuracy $F (1, 33) = 27.89, p < .0005$, and truthfulness $\text{Wald} (1, N = 31) = 6.74, p = .009$ of their responses from Interview 1 to Interview 2, than children who were interviewed twice with direct-examination. Furthermore, 78% of children who were coached and then cross-examined in Interview 2, showed changes in their truthfulness, with 86% of these children becoming more truthful following cross-examination. These findings suggest that although cross-examination may lead to greater inconsistency between interviews, it may be useful in uncovering truthful testimony from children who have been coached to provide a false report. Implications of these findings for children’s testimony will be discussed.

**CHILDREN’S REPORTING OF A TRANSGRESSION AFTER PROMISING TO TELL THE TRUTH**

KAY BUSSEY
kay.bussey@mq.edu.au

Sexually abused children rarely disclose abuse at the time it occurs. Most children’s disclosure is delayed and incomplete. Because many victims of child sexual abuse are required to testify in court, researchers are addressing ways to facilitate disclosure in a manner that is legally acceptable. Although promises play a central role in promoting truth telling in the legal system, research findings about whether they promote truth telling are mixed. Therefore, this study investigated if knowledge about lying, truth telling, and promises is necessary for promises to promote truth telling. Participants were 66 (34 girls and 32 boys) predominantly White middle-class children between the ages of 5 and 7 years (mean age = 69 months). The research team consisted of two male confederates and three female interviewers. When tested, each child interacted individually, first with a confederate and then with an interviewer, for about 35 minutes. The child and confederate participated in a staged event during which the confederate either committed a transgression (stealing stickers) or not (looked at the stickers). Prior to the interview about the staged event, children’s conceptual understanding of lies, truths, and promises was assessed. Those children who witnessed the transgression were asked to either promise to tell the truth, agree to tell the truth, or simply asked to tell the truth before commencing the interview. Children in the non-transgression condition were only asked to tell the truth about the staged event. The results revealed that children were more able to correctly identify breaking a promise than keeping it. They also believed it was better to tell the truth than to lie whether or not a promise to tell the truth had been made. Only 17% of children disclosed the transgression during the interview and disclosure did not vary across conditions, $\chi^2 = 2.286, p = .319$. Children who promised to tell the truth were no more likely to do so than children who made no such promise. It was found, however, that children who promised to tell the truth provided more correct information about the staged event. Although children were highly knowledgeable about lies, truth, and promises, this did not predict actual truth telling. The role of promises in promoting children’s reliable testimony and other ways of increasing children’s truth telling when an adult tries to silence them are discussed.
TEACHERS TALK TRANSITION

LYN FOOTE (University of Otago)
lyn.foote@otago.ac.nz

In this symposium early childhood teachers and researchers will share their views on transitions. Transition is an issue which is faced daily in the world of an early childhood centre. This symposium will provide an opportunity for teachers to share and reflect on what they do to make sure that transitions are positive learning experiences for children. Children’s entry into the world of early childhood is a major event particularly when they are very young. The organisation of early childhood centres often means that children upon reaching the age of two years transition into another setting. The teachers from two nursery settings will share what they have done to ensure the wellbeing of the children as they make this move from the security of an under two setting to a setting with older children. Both settings see the key to successful transition being relationships and children’s sense of identity. While there are many transition points throughout children’s daily routines, often teachers greatest concern is the next major change for children which is when they begin school. A local kindergarten will share what they have done to ensure that children’s transition to school is facilitated through the development of relationships and providing information to ensure some congruity between the settings. The final paper will provide an overview of what early childhood teachers see as the important aspects of effective transitions for children. A recurring theme throughout the papers has been the importance of relationships. Socio-cultural theory provides a sound basis upon which to evaluate transition processes.

NURSERY TRANSITION

KATH KNOX, REARNA SHELLEY, DANIELLE CLARKE, & GINA LOVE

Teachers at the Nursery endeavour to facilitate a relaxed and flexible environment where the interests and needs of the child are the primary focus. The Nursery teachers enhance learning by engaging in a ‘key teacher’ or ‘primary carer’ approach. This approach enables teachers to fully develop responsive relationships with their key children and whanau, gaining a thorough understanding of their unique routines, needs and personalities. Rosina Merry (p 28, 2004) emphasises that early childhood education and care is a time for children to learn to cope with change and challenge and that challenges constructed by the adults associated with transition should be carefully managed and supported. As the Nursery children and their whanau transition into other larger centres they experience the challenges of a more complex learning environment, interact with older children and teachers with different philosophies to those of the Nursery teachers. The research began with the compilation of the written transition documentation that had accumulated over the last four years including procedures, self review, written assessment and anecdotal notes. It was decided that we should collaborate with our neighbouring centre and both teaching teams compiled a ‘wish list’ for effective transitions. We then had a meeting together and formed a new joint ‘transition procedure’. Throughout the 12 months of research the teachers have observed and recorded feedback from children, whanau and teachers. Findings have suggested that each child’s transition is affected by external factors and despite a more ‘formalised’ transition procedure each transition had its own challenges and difficulties. Challenges included differing philosophies between the centres, parents wanting more choice about which centre could place their child, the other centres were not involved in the research and therefore were not as involved as the Nursery teachers in the transition process. As Nursery teachers have been taking children for visits parents have also taken a lesser role in transitioning their children, later feeling a sense of shock when their child moves to the other centre. Despite the challenges, positive transitions have occurred in which parents and children have been introduced to their new centre by their child’s key teacher, children have relished the challenges of the new environment and have not wanted to return to the Nursery, children and whanau have transitioned with friends, and children’s language and play has become more sophisticated and complex as they interact with older children in tuakana-teina relationships in the new centre.
IT'S ALL ABOUT THE CHILDREN, WELL NO IT IS ABOUT THE ADULTS!

KAY LLOYD JONES, TONI CLARKE, JULIE BUIS, & GAIL WOOD
ouca@xtra.co.nz

When planning the transitions between our under two and over two settings the focus of procedures and practice had always been on the child and the adaptation they were required to make. The teachers were there to scaffold and support in Bronfenbrenner’s microsystem but what we failed to fully appreciate was the impact of the mesosystem, the links between our environments. Our self review began from recognition that there was a big difference in the outcomes for individual children and that this could not be explained by temperament alone. Sometimes the transition would go very well and sometimes it would go very wrong. The under two teachers examined the divergent experiences for individual children from the perspective of how these were perceived by the children’s primary careers, who from their intimate knowledge of the child felt the pains and joys of transition alongside the child and family. Communication between and expectations of all the adults involved were identified as holding the key to improved experiences for the children. Success came after adults constructively shared concerns, expectations, the reality of different settings and their unique knowledge of the individual child. The over two teachers ensured they were welcoming a competent child without the lens of being ‘from the Nursery’. To be seen in one setting as a confident learner who is given responsibilities and recognized for their expertise in negotiating the physical, social and emotional environment then to transition into another setting where you are challenged by totally different and new environments requires teacher knowledge and expertise through established effective relationships with parents, Nursery teachers and of course the child themselves if self confidence and identity as a learner are to be maintained by the child in transition.

FROM KINDERGARTEN TO SCHOOL
MARILYN HYNEMAN, RACHEL PHILLIPS, KATE COULING, & LINDA RITCHIE

What can we do to enhance the relationships with local schools in our community and inform our families of the transition procedure? As a team we decided to discuss possibilities with New Entrant teachers at local schools as to how we could promote a transitioning programme. New entrant teachers were invited to our Kindergarten to discuss children who were to attend their schools and develop an understanding of our programme and assessment practices. The children were given the opportunity to meet their new teachers. Books were created which introduce the schools. They include pictures of children visiting aiming to show the similarities and differences between school and kindergarten. A pamphlet was created for families informing them of local schools, the process of enrolling children at schools and expectations of their role as parents in transitioning their children to school. The outcome of this initiative was more visits with the local schools, with one school regularly visiting kindergarten to share some buddy reading and waiata. We have had sharing of food and Christmas celebrations with dance, stories and songs that involved the whole kindergarten going on this excursion. There has been more discussion with families asking about the schools in the area, and families thinking about what would be best for their child. Parents are making more informed decisions. Schools have commented on the improved relationships, valuing the kindergarten input, and their increased awareness of the programme. There have been more meetings and discussions with school principals and new entrant teachers. This has resulted in more contact and discussions about the best outcomes for children. There has been a more positive transition process for children and their families. Parents and families have commented positively on the new procedures. These procedure continue to be a working document that is assisting children and their families to have a smooth transition into the school of their choice. The teachers at the kindergarten believe that the key to this improved transition process is the nature of the relationships with the children, families, new entrant teachers and principals. Everyone has made a commitment to keep in contact regularly.
Transitions are critical events in young children’s learning and development. Children in early childhood centres face many transition events each day. Transitions are important for supporting or inhibiting children’s learning and development. Transitions are not just ‘one-off’ events, but rather they are processes that extend before and after the transition point (Peters, 2010). The transitions of children into and out of early childhood settings are often regarded by their teachers, families/whānau as major occurrences. There is usually considerable ritual and ceremony attached to these events which ensures that participants recognize them as important. A key question for teachers is what facilitates successful transitions. A range of theoretical perspectives have shaped thinking about transition. Dalli (2000) suggests psychological studies have largely been based on attachment theory which focuses on the effects of separation while sociocultural theory offers relational and contextual view on transitions (Vogler, Crivello & Woodhead, 2008). Rosenthal (2000) suggested that often what matters is the level of congruence between the settings. As she says the likelihood of finding congruence in child-rearing goals, in beliefs about how children learn best, or how best to interact with children, is not very high. Possibly it is the discontinuities which present the greatest challenge and potential for learning and development. Although the focus in much transition literature is on children, transitions also impact on the adults, parents and teachers, for whom transition is also a significant event. Teachers and parents should have a voice in the transition process. The purpose of this study was to ascertain what early childhood teachers thought were the important aspects of transition. A questionnaire was sent to a random selection of early childhood centres in the Otago/Southland region. One hundred centres were approached, forty teachers responded, representing a 40% return rate. The key themes running through the teachers’ responses were that both relationship and structural factors facilitate and constrain the transition process. While people recognize the significance of transition as a learning context key relationships and structural factors need to be present if children’s learning is to be enhanced. While the importance of relationships in facilitating positive transitions was emphasized, teachers consistently described how the structural factors of their settings inhibited this process and jeopardized children’s ongoing learning. Some of these structural factors included time to support effective transition; management practices, and ratios.
Disentangling the nuances of contextual factors associated with developing phonological awareness skills in preschool children

ELIZABETH SCHAUGHENCY (University of Otago)
schaughe@psy.otago.ac.nz

Not all young people in Australia and New Zealand achieve successful literacy, educational, and social outcomes. For many children who struggle with reading acquisition, differences in development of skills associated with reading development, such as phonological awareness, are apparent at school entry. In this symposium, we explore contextual factors associated with developing phonological awareness skills. In Paper 1, Reese and colleagues review the literature on home literacy environment influences on phonological awareness skills and present preliminary findings from a laboratory study examining the correlations between observed parent-child interactions and phonological awareness of four-year-olds. In Paper 2, Luo and colleagues extend the work of Reese et al. to examine the extent to which parent-child interactions observed in the home and home literacy activities sampled via daily diary data when children were three predict phonological awareness at age four. In Paper 3, Carroll and colleagues consider contextual factors in early childhood settings potentially relevant to facilitating development of phonological awareness skills and present preliminary findings from a study in which Early Childhood Educators’ explicit knowledge of phonological awareness is assessed. Finally, the symposium convenor serves as discussant, providing an integrative commentary on potential research and practice implications of the research presented.

"Does the Brown Banana Have a Beak?" Mothers' Wordplay and Children's Phonological Awareness

ELAINE REESE, SARAH DIVERS, & SARAH-JANE ROBERTSON
ereese@psy.otago.ac.nz

Children's phonological awareness, or their ability to separate the sounds of speech, is an important predictor of their reading skill. Children's phonological awareness develops over the preschool years, prior to formal reading instruction, and progresses from an awareness of larger to smaller speech units (e.g., from syllables to phonemes). Although we know the significance of preschoolers’ phonological awareness for beginning reading, we do not yet know the environmental contributors to its development. One potential candidate is shared book-reading between parents and preschoolers. However, shared book-reading, as it is typically practiced, appears to contribute mainly in an indirect way to children's phonological awareness by increasing their spoken vocabulary, which in turn enhances phonological awareness. We present evidence of the role of informal conversations between mothers and their preschoolers in the growth of phonological awareness. We predicted that mothers’ strategies for highlighting speech sounds in conversation would be linked to children's phonological awareness. A total of 35 mothers and their preschool children (M = 4 years; 13 girls) participated in a lab play session. We videotaped the mothers interacting with their children with rhyming toys (peas, trees, keys, and two letter "b"s) and alliterative toys (banana, ball, bell, butterfly) for 6 minutes each. We reliably coded mothers’ speech for their use of direct sound strategies (e.g., “They all start with B”) and indirect sound strategies or wordplay (“Does the brown banana have a beak?”). Then we tested children's phonological awareness using the Word Parts and First Sound Fluency tasks of the Pre-K DIBELS for NZ. We assessed children's vocabulary with the Test of Early Language Development. Mothers' indirect sound strategies or wordplay correlated moderately with children's phonological awareness (rs = .58 and .45, ps < .05), even after controlling for children's age, SES, and language skill. Mothers’ direct sound strategies did not correlate significantly with children's phonological awareness. These results provide the first evidence, to our knowledge, that mothers’ everyday speech is correlated with their children's growth in phonological awareness. We are aware of the limitations of this first study with its concurrent design and structured interaction procedure. However, we believe that these results are intriguing evidence of the possibility that phonological awareness is fostered through informal and playful interactions between parents and preschoolers.
PREDICTING PHONOLOGICAL AWARENESS SKILLS AT AGE 4: CONTRIBUTIONS OF REPORTED HOME LITERACY ACTIVITIES, OBSERVED PARENT-CHILD INTERACTIONS, AND SLEEP STATUS AT AGE 3

REBEKAH LUO, AMELIA GILL1, CARMEN LOBB, ELIZABETH SCHAUGHENCY, ELAINE REESE, & BARBARA GALLAND
luore566@student.otago.ac.nz

Phonological awareness skills develop over the preschool period, with individual differences in phonological skill development apparent at age 4. The preschool period is also a period of risk for development of sleep disrupted breathing. Earlier research has found that parent reported daily literacy activities, observed parent-child interactions, and sleep status are associated with performance on phonological awareness tasks at age 3. To examine the extent to which these variables contribute to skill development at age 4, we followed a sample of 89 children, 48 of whom showed evidence of sleep disrupted breathing at age 3. At both age 3 and one year later at age 4, data were collected across a one week period and included multiple measures of sleep quantity and quality to verify sleep status, daily home literacy activities, early childhood educators’ ratings of literacy activities in the early childhood setting, along with general measures of children’s cognitive and language functioning and more specific measures of children’s phonological awareness and alphabetic skills. In addition, at age three, a subset of 64 parent-child dyads participated in the parent-child interaction task described by Reese and colleagues in their homes. Data collection and coding are complete. Prior to presentation, data will be analysed using correlation and regression procedures to investigate the contribution of environmental and child characteristics at age three to phonological awareness at age 4. Potential research and practices implications of obtained results will be discussed.

PHONOLOGICAL AWARENESS OF NEW ZEALAND EDUCATORS

JANE CARROLL, GAIL GILLON, & BRIGID MCNEILL
jcarroll@clear.net.nz

Explicit phonological awareness instruction in children’s literacy acquisition has been much discussed in research. Some recent research is shifting the focus from children to the explicit language knowledge of the adults working within classrooms and the professional development required to prepare them to facilitate early literacy success for all children. This study investigated the phonological awareness skills of 682 educators in New Zealand through their participation in a predominately oral 40 item Teachers’ Phonological Awareness Test (Love and Reilly, 1995). Participants included Primary School Teachers, Early Childhood Educators, Speech-Language Therapists, Resource Teachers of Literacy, Resource Teachers of Learning and Behaviour Teacher Aides, and pre-service student teachers. The six subtests of the Teachers’ Phonological Awareness Test evaluated various aspects of phonological awareness (including syllable, rhyme and phoneme identification) and were designed to examine participants’ understandings of phonological awareness in some detail. The first author administered the test to groups of participants under standard test conditions. All participants were given the same instructions e.g. “Write down the number of syllables in the word ‘inconceivable’”. Repetitions of the test items were permitted and participants were asked not to write the words down. No explanations of terminology e.g. ‘phoneme’ or ‘sound’ were given, even if requested. 250 randomly selected papers were checked for scoring accuracy by two speech-language therapists, with 98% reliability. The results indicated that the participants had widely differing phonological awareness understandings. A univariate ANOVA on the total score showed significant mean differences in the groups. (F = 108.06, df 7,674, p <.0001). The SLTs had a mean correct of 39 (SD=1.026); RTLits 35 (SD=3.968); RTLBs 31 (SD=8.242); teachers 29 (SD=5.113); teachers’ aides 25 (SD=5.040); ECE 23 (SD=3.034); Yr3BTStudents 27 (SD=4.862) and Yr1BT students 22 (SD=4.522). The standard deviation of the SLT’s was significantly smaller than that of the other groups so a non-parametric equivalent (Kruskal-Wallis ANOVA) was performed, again showing significant differences in total scores across the groups (Chisquare= 332.4, df=7, p < 0.001). Early childhood educators demonstrated the weakest overall performance. Phoneme identification and segmentation tasks proved problematic. The results of this study suggest professional development in phonological awareness and in particular phoneme level skills for adults facilitating children’s literacy development is warranted. The level and intensity of professional development required for educators to be able to provide explicit feedback within the New Zealand context is yet to be investigated in detail.
PSYCHO-SOCIAL DEVELOPMENT

MORAL DISENGAGEMENT AND GROUP NORMS: THE ROLE OF INDIVIDUAL AND GROUP FACTORS IN CHILDHOOD BULLYING

AMANDA DUFFY & HEATHER GULLIFORD (Griffith University)
a.duffy@griffith.edu.au

Bullying in schools has been identified as a major societal concern. To add to our understanding of why children engage in bullying, the present study aimed to examine the individual and interactive roles of moral disengagement and group norms. A sample of 314 children (119 males and 195 females), enrolled in Grades 5 to 7, was recruited from two primary schools in South-East Queensland, Australia. Participants were required to complete self-report measures of moral disengagement, friendship group norms, and bullying behaviour. Results revealed a number of significant findings. When overall bullying was considered, children higher on moral disengagement reported greater bullying behaviour than those lower on this characteristic. Children who reported belonging to a friendship group with norms more supportive of bullying also reported greater involvement in bullying than those belonging to groups with norms less supportive of such behaviour. However, these results were qualified by a significant interaction between moral disengagement and group norms. Specifically, when children belonged to a group that showed little support for bullying, children high and low on moral disengagement did not differ in the extent of their involvement in bullying. In contrast, when children belonged to a group with norms more supportive of bullying, children high on moral disengagement reported greater involvement in bullying than those low on moral disengagement. When direct and indirect forms of bullying were considered separately, this pattern was essentially replicated. These findings provide support for the relationship between moral disengagement and bullying as well as showing continued support for the role of group norms in explaining children's bullying behaviour. Furthermore, they highlight the importance of considering both individual characteristics and the social context when attempting to explain childhood bullying and when developing anti-bullying interventions.

GENDER COMPOSITION AND CONFLICT IN UNIVERSITY FLATS

TAMAR MURACHVER & KIRSTEN ROBERTSON (University of Otago)
tamar@psy.otago.ac.nz

This study explored students’ experiences of conflict within single- and mixed-sex university flats. Of particular interest what whether conflict was dealt with by indirect or direct means, and whether this varied as a function of the gender composition in the flat. Forty-four (20 male, 24 female) University students took part. Of these, twenty-two students lived in a mixed-sex flat, 12 lived in an all-female flat, and 10 lived in an all-male flat. Students completed questionnaires and in-depth semi-structured interviews. They discussed areas of conflict, how the conflict developed, how they dealt with it, the effects of the conflict, and offered advice for future flatters. Findings were analysed as a function of the flatting context (mixed, all-male, all-female) and gender of participant. Analyses revealed that all-female flats were more likely than the other flat composition types to have problems with a single flatmate. Although conflict sometimes revolved around chores and resources, much of it stemmed from one person being perceived as ‘difficult’ or as an ‘outsider’. Conflict was more prevalent within flats that did not eat or socialise together or when one flatmate behaved as if he or she was not part of the group. Men tended to deal with conflict more directly than did women, whereas women experienced more anger and frustration. Women reported that their means of addressing conflict served positive purposes within the flat, such as increased closeness amongst flatmates. Conflict was more often resolved in all-male flats compared to mixed and all-female flats. Results will be discussed in relation to gender roles and gender stereotypes of anger expression and aggression.
Children as they grow, travel outwards from their immediate family and home to engage with wider society across an expanding spatial sphere. Key steps in this process include progression from social engagement within the home, to street to neighbourhood to city and wider realms of engagement. Neighbourhoods are a key element in children’s developing social connectivity especially across the middle childhood years. It is at the neighbourhood level that traditionally children have begun the process of engaging with wider society, accessing social institutions such as schools, developing their independent mobility and building up a mental map of their place in their physical and social worlds. In recent years this process of developing engagement with wider society has become less clear and more complex as people lead more spatially dispersed lives. Places of work, leisure, cultural connectivity, worship, shopping and so on decentralise to become city based rather than neighbourhood based. It is a process that has been supported through planning practice and the increasing availability of personalised transport modes, namely the private car. Yet it is simultaneously a process that in turn potentially diminishes local social connectivity, especially for children. This paper examines the role of neighbourhoods in children’s social development. It asks whether the role of the local environment is changing for children in cities and if it is changing what might the impacts of this change be for children’s social connections to place. The paper presents the findings from studies undertaken with over 200 children in the final years of their primary school education in Dunedin, New Zealand and Suva, Fiji. In both of these cities children increasingly access facilities such as schools, shops, sports grounds, medical facilities and parental work places that are widely distributed across the city. Their social connections can be equally dispersed. The findings from these studies suggest that different interpretations and approaches to understanding children’s social lives and development may be required if cities are to be planned and developed to reflect children’s needs.
MEMORY

TO HAVE AND TO HOLD: EPISODIC MEMORY IN 3- AND 4-YEAR-OLD CHILDREN

DAMIAN SCARF, JULIEN GROSS, MICHAEL COLOMBO, & HARLENE HAYNE (University of Otago)
damianscarf@gmail.com

Episodic memory endows us with the ability to reflect on our past and plan for our future. At present, the developmental emergence of episodic memory is unknown. In the present study, we tested 3- and 4-year-old children on Tulving’s spoon test, the litmus test of episodic memory. In Experiment 1, children participated in two experimental sessions separated by a 24-hour delay. In Session 1, the child was taken to a large sandbox and dug for a treasure chest. The experimenter and child uncovered the treasure chest only to find that it was locked. After the experimenter established neither they nor the child had a key they returned to the lab. Twenty-four hours later the child returned for Session 2. At the start of this session the experimenter told the child they would be returning to the sandpit and gave the child a choice between three objects to take home with them: a small, brightly-coloured ball, a small brightly-coloured wind-up toy, and a key. The dependent measure was whether the child selected the key to take out to the sandbox. Significantly more 4-year-old children than 3-year-old children selected the key and the number of 4-year-old children that selected the key was significantly above chance, while the number of 3-year-olds who selected the key was no different from chance. The fact that so few 3-year-olds selected the key and made reference to its future utility suggests that there is a shift in episodic memory abilities between 3- and 4-years-of-age. In Experiment 2, we explored the nature of this shift by testing 3-year-olds with shorter delays between the sandpit episode and the choice of the three objects. We found the number of 3-year-old children passing the spoon test decreased as the delay increased. In our final experiment, we tested 4-year-olds with the much longer delay of a week and, similar to the 24-hour delay, found a significant number of 4-year-olds selected the key. Together, these finding suggests that 3-year-old children can form episodic memories but have difficulty in retaining those memories, while 4-years-of-age children can form and retain episodic memories over extended delays. Our findings have important implications for childhood amnesia, suggesting it is the development of the ability to retain, rather than to form, episodic memories that may be the critical development marking the offset of childhood amnesia. That is to say, while 3-year-olds have episodic memories, most cannot hold onto them.

VULCANISING THE MEMORY TRACE: EXPLORING THE NATURE OF SHORT-TERM CONSOLIDATION IN CHILDREN

DONNA BAYLISS (University of Western Australia)
donna.bayliss@uwa.edu.au

Recent evidence suggests that new memory traces undergo a process of consolidation whereby they become more durable and less vulnerable to interference over time. A slowed or impaired consolidation process is thought to compromise performance on any cognitive task in which mental representations must be rapidly created and integrated with subsequent information entering the system, and so, this process is likely to be of crucial importance to children in the context of learning within a classroom. However, research on short-term consolidation has been limited to investigations of adult performance using visual stimuli. Consequently, little is known about the nature of this process in children. This study aims to (a) examine whether a memory consolidation process is evident in children, (b) compare the consolidation functions for verbal and visual information, and (c) examine whether consolidation requires central attentional resources by correlating the estimates of consolidation rate taken from the visual and verbal tasks. In Experiment 1, 59 children (mean age 8 years 9 months) completed two change-detection tasks, one visual and one verbal, designed to measure short-term consolidation. The visual and verbal tasks both produced consolidation functions similar to that evidenced in adults, however, the consolidation function from the verbal task was less pronounced. Moreover, and contrary to expectations, estimates of consolidation rates calculated for each child for each of the two tasks did not correlate. In Experiment 2, 51 children (mean age 9 years 0 months) completed two visual change-detection tasks. Again, both tasks produced consolidation functions. However, in contrast to Experiment 1, individual estimates of consolidation rates for each task were correlated, indicating that the estimates of consolidation rate were reliable. Taken together, the results suggest that children do show evidence of a consolidation process, but that
the consolidation of visual and verbal information may involve separate encoding mechanisms. These results will have theoretical implications for current explanations of the consolidation process which has been argued to rely on central mechanisms. The finding that the consolidation of information takes time may also be informative to educators in terms of providing learning situations that are most likely to enable the consolidation process to take place and improve the retention of information.

**CONSOLIDATION IN CHILDREN**  "Remember coming here a little while ago?" Children's memory retrieval using verbal reminders

KANA IMUTA, JULIEN GROSS, & HARLENE HAYNE (University of Otago)
kanaimuta@psy.otago.ac.nz

Verbal reminders play a pervasive role in memory retrieval by human adults. Relatively non-specific cues such as, “Remember the last time we came to this restaurant?” can elicit vivid recollections of a past event. At what point in development do children begin to use these general prompts to retrieve a particular memory? In an attempt to answer this question, we investigated the effectiveness of verbal reminders on children's performance on the visual paired comparison (VPC) paradigm. In Experiment 1, 4-year-old children were familiarized with a single cartoon face for a 5-s period, and following a 2-week delay, they returned for a test session. Immediately prior to testing, half of the children were given the verbal reminder, “Can you remember coming here a little while ago? Can you remember what face you saw the last time you came?” The other half of the children entered the testing room without receiving the verbal reminder. The test consisted of two 10-s trials in which the original stimulus and a novel stimulus were presented side by side, and children's looking to both was recorded. In Experiment 2, the same procedure was repeated with 2- and 3-year-olds, except that the initial familiarization time was increased to 10-s. The results of Experiments 1 and 2 demonstrated that, when provided with a verbal reminder, 3- and 4-year-olds exhibited a significant novelty preference (i.e., memory) when tested after a 2-week delay; however, 2-year-olds did not. Do 2-year-old children completely lack the ability to exploit verbal reminders in order to retrieve memory? Previous studies using nonverbal cues, for example, have shown that the delay after which a memory can be retrieved with a reminder treatment is shorter for younger children (e.g., Hildreth & Rovee-Collier, 2002). In Experiment 3, 2-year-old children were familiarized with a single cartoon face for a 10-s period and were tested after a 1-week delay. The testing procedure was identical to that described for Experiments 1 and 2. Preliminary findings indicate that, when reminded and tested after a shorter, 1-week delay, 2-year-olds now exhibit a significant novelty preference. The implications of these findings in clinical, legal, and educational settings will be discussed.
MECHANISMS OF ADAPTIVE PARENTING: FINDINGS FROM AN AUSTRALIAN STUDY OF ADAPTATION FROM PREGNANCY THROUGH EARLY PARENTOOD

FRANCES GIBSON (Macquarie University)
frances.gibson@mq.edu.au

Becoming a parent is a major life transition for men and women. Research into psychosocial adaptation during this transition often focuses upon the areas of maternal health and well-being, parent-infant attachment, and couple adjustment. This symposium offers new perspectives by examining parents’ adaptation to stress during the transition to parenthood. All three papers presented evolved as part of a larger longitudinal Australian study investigating physical, psychological and social adaptation during the transition to parenthood (Parental Age and Transition to Parenthood Australia (PATPA)). The first paper focuses on individual differences in mothers and toddlers in the context of a stressful play task, the second paper examines associations between maternal representations of the child and parenting stress and the final paper explore associations between attachment style and parenting stress in first time fathers. The first paper, (Johnson, McMahon, & Gibson) examines maternal personality, parenting behaviour and mother-child interaction quality in relation to toddlers’ capacity for emotion regulation during a stressful play task. Initial analyses found that toddlers who were more responsive and involved with their mothers demonstrated more adaptive self-regulated coping behaviours and less negative affect throughout the stress task. Additional analyses involving a larger sample, and including toddlers’ sleep behaviour and maternal factors unique to this area of research will also be presented. The second paper (Berry, McMahon, & Gibson) examines the extent to which parenting stress was associated with a mothers’ proclivity to attribute mental states to her toddler (maternal mind-mindedness). Mind-mindedness was coded using the maternal description method of measurement. Initial analyses found that older mothers were significantly more likely to attribute mental states to their toddlers’ behaviour. However the relationship between mind-mindedness and stress was less clear. A more comprehensive analysis including all of the participants involved in this study is required to confirm the strength of these relationships. Few studies of psychosocial adaptation during the transition to parenthood feature investigations of the paternal experience of parenting stress. The final paper (Lightfoot, McMahon, & Gibson) examines prospective associations among adult attachment style (assessed in pregnancy), parenting stress and coping responses of 91 first time Australia fathers (measured six months after childbirth). Fathers whose attachment dimensions corresponded with insecure forms of attachment reported higher parenting stress. More comprehensive analyses concerning paternal coping, and the degree to which attachment dimensions predict parenting stress will also be presented.

EMOTIONAL AVAILABILITY: LINKS WITH EMOTION REGULATION AND SLEEP PROBLEMS IN TODDLERS

NIKKI JOHNSON, MCMAHON, & FRANCES GIBSON
nikki.johnson@mq.edu.au

Self-regulation is critical to early and ongoing cognitive, behavioural and social-emotional development (Kochanska, Coy & Murray, 2001), and is believed to be primarily derived from parental interactions which encourage appropriate challenges and opportunities for mastery (Sroufe, 2000). This paper explores mechanisms within the dyadic relationship that explain individual differences in the development of self-regulation in toddlers. This preliminary report focuses on relations between child Emotional Availability (responsiveness and involvement with mother) and child self-regulatory capacity in two contexts: stress tolerance and sleep regulation. We hypothesised that children with more optimal EA would demonstrate more self-regulated coping behaviours a) during a stressful play task and b) fewer sleep problems than children with lower EA. Data are reported on 40 mother-child dyads, a subset of a longitudinal sample of 139. Mothers had a mean age of 32.76 years (SD=4.19, range=26-40 years); and toddlers had a mean age of 18.32 months (SD=0.67, range = 18–21 months). Each dyad was filmed at home during a 10-minute free play and pack-away session which was later coded using the Emotional Availability (EA) Scales,Version 4. To maintain validity two coders coded mothers and children independently. An experimental task aimed to induce child frustration was filmed after the free-play. The child’s favourite toy was placed tantalisingly out of reach of the child within a large clear box, while their mothers engaged in an alternative activity and were instructed to remain unavailable to their child for
five minutes, after which they were asked to join their child, but without opening the box. Both maternal parenting strategies (positive vs. negative control, pre-emptive intervention and empathy) and child coping strategies (distraction, constructive coping, passive coping and maternal orientation) were coded for their absence or presence in both conditions. Child negative affect (ranging from absent to extreme) was also coded. Finally, parents reported on child sleep using sleep diaries which were validated using Actigraph monitors. The hypothesis that children with higher EA (total) would demonstrate more adaptive self-regulated coping behaviours, \( r(40) = .36, p < .05 \), was supported and these children were found to experience less negative affect throughout the stress task, \( r(40) = -.60, p < .001 \). There were no associations between child EA and sleep (night waking or time to settle). Additional analyses with the larger sample will be conducted and presented, including mother EA and maternal factors unique to this area.

UNDERSTANDING MIND-MINDEDNESS: MATERNAL CORRELATES AND THE EXPERIENCE OF PARENTING STRESS IN TODDLERS

SINEAD BERRY, MCMAHON, & FRANCES GIBSON

Maternal mind-mindedness (Meins, 1997) refers to the propensity of a parent to attribute mental states to a child and view their behaviour as meaningful. Mind-mindedness can be coded using observational measures of mind-minded comments during free-play interactions (typically with infants), and also by analysing maternal descriptions of their child (generally preschool-age). Emerging research has shown that parents who score higher on mind-mindedness using the maternal description approach to measurement report lower parenting stress and show fewer intrusive behaviours during interaction (McMahon & Meins, submitted manuscript). Demographic factors such as age and educational attainment may also impact on maternal sense of effectiveness and perception of their child’s behaviour (Ostberg & Hagekull, 2000), with higher education and age associated with less stress. We hypothesised that older mothers of 18-20 month old toddlers are more likely to experience higher level of mind-mindedness (as measured by maternal description) and less parental stress than younger mothers. This paper will report on 120 Australian mothers and their first-born children who were recruited during pregnancy into a longitudinal study, Parental Age and Transition to Parenthood Australia. They were followed up at 18 months of age and mind-mindedness was assessed using the maternal description method of measurement. The Parenting Stress Index- long form (Abidin, 1995) was used to assess parental stress inclusive of both child (e.g., adaptability, demandingness, and distractibility) and parent (e.g., depression, attachment, and competence) related factors. Preliminary correlation analyses on 78 mothers indicate that older mothers are significantly more likely to attribute mental states to their toddlers behaviour when asked to describe their child (\( r = .048, p = .224 \)). However the relationship between mind-mindedness and stress although in the suggested direction was indicative of a non-significant trend (\( r = .36, p = .097 \)). A more comprehensive analysis including all of the participants involved in this study is required to confirm the strength of this relationship. Initial findings are similar to McMahon and Meins (submitted manuscript) trends for preschool age children. Thus, older mothers are more likely to experience higher levels of mind-mindedness and experience less parental stress than younger mothers. A more comprehensive analysis including all of the participants will be presented at the conference and the clinical implications of these results will be discussed.

STRESS AND COPING DURING THE TRANSITION TO FATHERHOOD

JEANETTE LIGHTFOOT, MCMAHON, & FRANCES GIBSON
jeanette.lightfoot@mq.edu.au

Psychosocial factors including but not limited to adult attachment style are known to be associated with psychological well-being and relationship satisfaction during the transition to parenthood (e.g. Alexander et al; 2001; Feeney et al., 1994; Feeney et al., 2000; Lowyck et al., 2009). However few studies focusing upon psychosocial adaptation during this important transition feature investigations of the paternal experience of parenting stress (Saisto, Salmela-Aro, Nurmi & Halmesmaki, 2008), despite the potential harmful effects of such stress upon parents and children (Abidin, 1995; Ostberg & Hagekull, 2000). This paper describes the parenting stress experienced by, and coping responses used by a sample of 91 first time fathers (6 months after childbirth). The paper also reports prospective relationships among dimensions of adult attachment style (assessed during pregnancy), parenting stress and coping. The research
evolved within a larger longitudinal Australian study investigating physical, psychological and social adaptation during the transition to parenthood (Parental Age and Transition to Parenthood Australia (PATPA)). The Attachment Style Questionnaire (Feeney et al., 1991) was used to obtain two attachment dimension scores suggestive of attachment insecurity (anxiety over relationships and discomfort with closeness). Parenting stress and coping were evaluated using the short form of the Parenting Stress Index (PSI-SF) (Abidin, 1990) and the Brief COPE (Carver, 1987). Preliminary analyses revealed moderate, positive associations between each attachment dimension and parenting distress (PD), difficult child (DC) and total stress (TS) subscales ($p$'s < .01); small positive associations were found for the parent-child dysfunction interaction (PCDI) subscale ($p < .05$). Specifically, fathers whose adult attachment dimension scores correspond with an insecure form of attachment reported significantly higher parenting stress. These results are consistent with a large body of attachment research describing strong associations between insecure forms of attachment, and emotional distress. Furthermore they are the first published report of prospective associations between adult attachment style and parenting stress in new fathers. Additional analyses including multivariate regression analyses concerning the degree to which the each dimension of attachment style uniquely predicts parenting stress will be presented at the conference, together with research findings concerning coping.
ASSESSING THE MOVING TARGET OF LITERACY DEVELOPMENT: EVALUATING INDICATORS OF LITERACY SKILL DEVELOPMENT IN AUSTRALASIA

ELIZABETH SCHAUGHENCY (University of Otago)
schaughe@psy.otago.ac.nz

Recognising the ramifications of reading for modern society, national education agencies in Australia and New Zealand have recently reviewed effective practices in reading instruction and intervention (Ministry of Education, n.d., National Inquiry into the Teaching of Literacy, 2005). To better serve young people who struggle with reading acquisition, these documents call for regular screening, with ongoing assessment to monitor growth and progress of individual children for formative evaluation purposes. To meet this need, evidence-based assessment methodologies are needed that are sufficiently sensitive to reflect change over time as a function of development or response to intervention within particular educational, cultural, and linguistic contexts. Brief fluency based indicators of proficiency have been identified as a potentially effective yet efficient methodology for assessing developmental progress over time within academic domains (Deno, 2003). In middle years primary students, accuracy and fluency in orally reading unfamiliar passages has been found to be a robust indicator of general reading proficiency (Reschly et al., 2009; Wayman et al., 2007). Given the transformation from learning to read to reading to learn across the primary school years, different tasks may be needed to reflect progress in reading at different developmental periods. This symposium presents three papers that consider potential indicators at different periods of literacy development, two papers that consider assessment during the period of reading acquisition and one in late primary school, at a point at which children are expected to be reading for meaning. In Paper 1, Knight and Galletly describe achievement of Australian Year 1 to 3 students from a field trial of the Dynamic Indicators of Basic Early Literacy Skills (https://dibels.uoregon.edu/) and directions taken in test development since that trial. In Paper 2, McLennan and colleagues examine predictive validity evidence for the New Zealand Word Identification Fluency task (McLennan, Struthers, Schaughency, & Clarke, 2010) with Year 2 students in a New Zealand sample. In Paper 3, Schaughency and Suggate examine maze fluency as a potential indicator of developing reading proficiency in a sample of senior (Year 5 – 6) primary students in New Zealand. The symposium will conclude with a discussion of potential implications of findings for research and practice.

EXPLORING THE USE OF DYNAMIC INDICATORS OF BASIC EARLY LITERACY SKILLS (DIBELS) IN REGULAR CLASSROOMS

BRUCE ALLEN KNIGHT & SUSAN GALLETLY
b.knight@cqu.edu.au

This paper in the symposium will explore the use of reading accuracy sub-tests of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) in an Australian context. The DIBELS benchmark-assessment and progress monitoring materials, developed by Good et al., are free-to-use materials. Increasing numbers of schools in the USA are using DIBELS to monitor student reading development. The increased usage could be due to government requirements that schools monitor reading-accuracy development, but, given that there are many American tests available for schools to use, this high level of DIBELS usage suggests that it is of value to schools. DIBELS benchmark tests specify not just the level of skill a child should have, but also the time-point when that level should be reached. DIBELS norms are developed for two test schedules, so that testing can be conducted either three or four times per year. A two test point schedule, with testing at mid- and end-year is used in the current study. There are four DIBELS reading accuracy subtests that are the focus of this research. The study reported here was undertaken in five primary schools in a regional area of Queensland. It explored the reading accuracy achievement of 398 students in Years 1-3 using DIBELS subtests. The study is preliminary and has limitations of purposive sampling, administration and design. The use of DIBELS with an Australian population will be discussed.
CAPTURING TRANSITIONS IN HUMAN DEVELOPMENT: EVALUATING AN INDICATOR OF BEGINNING READING IN NZ ACROSS THE SECOND YEAR OF SCHOOL

KATHRYN MCLENNAN, PHILIPPA STRUTHERS, & ELIZABETH SCHAUUGHENCY
mclka679@student.otago.ac.nz

Reading development is multifaceted and dynamic. Reading for meaning requires decoding and comprehension of words in text. However, passage reading and comprehension measures are susceptible to floor effects and may lack sufficient sensitivity to growth in beginning readers. Moreover, the constrained nature of prelexical components of reading renders measures tapping these skills susceptible to ceiling effects and potentially insensitive to growth once children have mastered component skills. Therefore, tools are required to assess developing reading proficiency during the period of reading acquisition. Consistent with the recognised value of sight vocabulary in beginning reading (Ministry of Education, 2003), accuracy and fluency in word reading is suggested as a potentially appropriate assessment target during this developmental period (Fuchs, Fuchs, & Compton, 2004). 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 (McLennan, Struthers, Schaughency & Clarke, 2010). Preliminary evaluation of concurrent and known groups validity evidence in beginning Year 2 students yielded promising results, supporting continued evaluation of NZWIF (McLennan et al., 2010). In this paper, we extend this earlier work by following a larger sample of Year 2 students across the school year (beginning, middle, end). Participants were 73 children from 3 Dunedin schools who attended Year 2 in 2009 and 2010. NZWIF performance increased, yet correlated strongly, across time ($r = .82 - .92$). NZWIF performance also correlated robustly with teacher reported instructional book level, both concurrently at each data collection period ($r = .86 - .96$) and predictively from one point to the next ($r = .89 - .94$), and correlated positively and significantly with other measures of reading and reading-related skills, with performance differing at each data collection point for children whose teachers were and were not concerned about their reading progress at end of Year 1. Additional analyses explore relations with instructional targets, such as National Standards and overall teacher judgment of reading progress in Year 2, and the degree to which NZWIF performance is sensitive to increasing reading proficiency across the school year. Findings to date suggest NWIF may be an efficient and effective indicator of beginning reading proficiency and support future research examining NZWIF as tool for capturing developmental trajectories and informing educational decision-making with developing readers.

CAPTURING GROWTH IN PROFICIENCY BEYOND READING ACQUISITION: EVALUATING READING INDICATORS IN A SAMPLE OF SENIOR PRIMARY STUDENTS IN NEW ZEALAND

ELIZABETH SCHAUUGHENCY & SEBASTIAN SUGGATE
schaughe@psy.otago.ac.nz

Accuracy and fluency in reading connected text is a robust indicator of reading proficiency in middle childhood. Evaluations in New Zealand (NZ) support this conclusion, with relative proficiency in oral reading fluency (ORF) stable from Years 4 to 6 (Schaughency, Suggate & Tustin, 2010). Poignantly, children who were least proficient in ORF at the beginning of Year 4 differed across all reading related skills assessed at the end of Year 6 (Schaughency et al., 2010). Such stability indicates strong instructional methods are needed to counter this pattern and assessment methods are needed that are sensitive to depicting stability and change in developmental trajectories. Research with senior primary children in the US suggests that whereas ORF may continue to be a useful indicator for screening with older students, the degree to which ORF continues to be sensitive to growth in older readers is unclear: Using traditional analytic methods of repeated measures ANOVA, Graney et al. (2009) found significant increases in ORF across grades, although less growth was found for older primary (Year 5 and 6) than younger (Year 4) students. Research using multilevel modelling (MLM, Ticha et al. 2009) and growth curve analyses (Espin et al., 2010) with older, beginning secondary students did not find evidence of continued growth in ORF in their studies. In contrast, maze fluency was found by both research groups to show increases over time, increases associated with increasing age/development (Graney et al., 2009) and proficiency (Espin et al., 2010; Ticha et al., 2009). Participants in the present study were 68
children from three Dunedin schools who were followed from the end of Year 5 to the end of Year 6. At the end of Year 5, children were assessed with oral reading fluency, maze fluency, and the Word Attack and Work Identification subtests from the Woodcock Reading Mastery Test (WRMT) – Normative Update. During Year 6, oral reading fluency and maze fluency were assessed beginning, middle, and end of the year, with WRMT re-administered at outcome, including passage comprehension. Multilevel modelling will be used to examine the extent to which growth as captured by repeated measurement across Year 6 is (a) reflected by ORF and/or maze, (b) associated with change in Word Identification performance, and (c) associated with performance on passage comprehension at outcome. Directions for future research and potential implications of results for monitoring growth and progress will be discussed.
ADOLESCENT WELL-BEING & CONFLICT
PARENT ADOLESCENT CONFLICTS AS PERCEIVED BY LATE ADOLESCENTS (16-19 YEARS OLD)
PAYAL MAHESHWARI (Nirmala Niketan, College of Home Science)
gm.mcdp.15@gmail.com

Adolescence is a difficult period to cope with not only for the parents but also the adolescent themselves. The transition from childhood dependency to adulthood independence brings about a number of changes in the lives of adolescence and related people. These changes in the life of adolescent lead to conflicts, especially with the parents, from whom the adolescent desire “letting go”. The present study was undertaken to explore the areas and issues of parent adolescent conflict as perceived by 16-19 year old adolescents, and to investigate the gender differences in the same. An attempt was also made to examine the 10 most salient parent adolescent conflicts as perceived by adolescents. The sample comprised of 60 Hindu college going adolescents, equally divided among boys and girls, belonging to upper and upper middle class nuclear families. The multistage cluster sampling technique was used. A self constructed conflict issues checklist was used to identify the issues related to parent-adolescent conflicts and interview schedule tapped information relating to different aspects of parent adolescent conflicts like duration, frequency etc. The data was analysed both quantitatively and qualitatively and it revealed the broad areas of conflict as family, academics and recreation. Out of the 10 areas of salient conflict, family, friends and daily routine were the three prominent ones indicated by the adolescents. Conflicts were mainly encountered with the mothers and largely found to be occurring on a daily basis. Majority of the conflicts were expressed in through arguments, were reported to last between 10-30 minutes, and perceived as moderately bothering to adolescents. Out of the total issues only 10% were resolved leaving the rest unresolved to recur. Most of the conflicts resolutions were reported to be either initiated by no one or by the mothers. Compromise was used predominantly as the conflict resolution strategy. Most of the adolescent wished that the conflict never occurred but simultaneously also reported that the conflicts helped them in learning to solve problems, getting to know different points of view and understanding the parents better and thus improving their relationship with parents. The implications of the study were discussed in relation to parent adolescent relationship and the role of parents in helping adolescent in making the transition towards adulthood in smooth and healthy manner.

COPING STRATEGIES AND PARENT AND CLOSE FRIEND SUPPORT AS PREDICTORS OF WELLBEING IN ADOLESCENTS
TRACY LUDLOW & MICHELLE HOOD (Griffith University)
T.Ludlow@griffith.edu.au

This study examined parent and close friend support as mediators of the relations between active and support seeking coping strategies and wellbeing in adolescents. The participants were high school students (N = 156) aged 12-16 years (M = 13.33 years, SD = .85). Forty five percent of the sample was female. The measures included the WHO 5 Well-Being Scale – 5 (Heun et al., 1999), the Child and Adolescent Social Support Scale (Malecki et al., 1999) and the Children's Coping Strategies Checklist (Ayers et al., 1996). Participants completed the measures in one testing session at school. Regression analyses, using the procedures outlined by Baron and Kenny (1996), investigated whether the different sources of support (parent and close friend) mediated the link between coping strategies (active and supportive) and wellbeing. Significant, positive linear associations were found between coping strategies (active and supportive) and wellbeing, between coping strategies (active and supportive) and parent and close friend support, and between both parent and close friend support and wellbeing. Mediation analyses show that when parent support was entered into the regression equation with active coping, parent support was the only significant contributor to the relationship with wellbeing (z = 2.25, p = .02). Similarly, when parent support was entered into the equation with support seeking coping, only parent support remained a significant contributor to the relationship with wellbeing (z = 3.28, p = .00). Further, when close friend support was examined using mediation and entered into the equation with active coping, only close friend support was a significant predictor of wellbeing (z = 4.31, p = .00). Similarly, close friend support mediated the relationship between support seeking coping and wellbeing (z = 4.91, p = .00). The results find the effect that either active and support seeking coping strategies have on wellbeing occur as a result of the relations...
each of the different coping strategies have with parent or close friend support. These findings highlight the importance of supportive relationships to coping, and as predictors of wellbeing in adolescents.

**SOCIO-EMOTIONAL KEY COMPETENCIES: CAN THEY BE MEASURED AND VALIDATED?**

ELIZABETH PETERSON (University of Auckland), RICHARD J HAMILTON (University of Auckland), SUSAN F FARRUGGIA (University of Auckland), & GAVIN T L BROWN (Hong Kong Institute of Education)

e.peterson@auckland.ac.nz

In 2005, the Organisation for Economic Co-operation and Development (OECD) recommended that key competencies (KC) be included into educational curricula in order to help develop good citizens and cohesive and economically successful societies. Underlying this recommendation was the belief that educators needed to prepare students for an increasingly global, complex, and changing world and that this requires teaching broader socio-emotional and personal management skills. This paper investigates whether the four socio-emotional OECD related key competencies (Managing Self, Participating and Contributing, Relating to Others and Thinking) can be operationalised and the extent to which they relate to academic efficacy, school connectedness and academic achievement. Study 1 operationalised the four socio-emotional key competencies in a sample of 668, Year 10 New Zealand secondary students. Study 2 involved 307 year 10 secondary students and was conducted to validate the key competency models by examining their relationship with academic efficacy, school connectedness and academic achievement.

The fit of the final four key competency measurement models explored in study 1 was such that they did not need to be rejected. The study 1 and 2 samples were found to have configural, structural and metric invariance and the structural models mapping the key competencies on to the three education outcomes in study 2 had acceptable fit. All the key competencies related to academic efficacy and school connectedness, but only Participating and Contributing related to achievement. This is the first study to operationalise the four NZ socio-emotional key competencies and to show that they predict both school connectedness and academic efficacy. This suggests that students who have a good sense of self worth, can control and regulate their behaviour, and enjoy thinking and speculating about their future, relate well to others, and participate in a wide number of extra-curricular activities also have confidence in their academic abilities and feel connected to their school. The only significant predictor of academic achievement was Participating and Contributing. This in keeping with other research findings that argue that participating in extracurricular activities is associated with higher achievement (Camp, 1990). The lack of associations between Managing Self and Thinking and achievement was surprising and possible explanations for this will be discussed.

**ENGAGING ADOLESCENTS AND MINIMIZING ATTRITION IN LONGITUDINAL STUDIES: RESPONDENT PANEL FOCUS GROUPS IN THE LONGITUDINAL STUDY OF AUSTRALIAN CHILDREN**

JACQUELINE HARVEY (The Australian Institute of Family Studies)

Jacqui.Harvey@aifs.gov.au

For longitudinal developmental studies, the issue of respondent attrition is a continuous challenge that needs to be addressed. Data capturing the lifespan is sought and therefore respondent engagement from infancy to adulthood is most desirable. However particular developmental stages, such as the transition from childhood to adolescence, can present critical points of respondent engagement within these studies. Not only is this transition from childhood to adolescence a time of significant developmental changes but it also marks the point in many longitudinal studies where the main respondent shifts from the parent to the adolescent. To ensure ongoing respondent engagement, it is essential that this shift be managed using a sensitive and informed approach to the study design and methodology. This paper reports the findings from the respondent discussion groups that were conducted for the wave 5 development of LSAC. Participants were recruited from the Longitudinal Study of Australian Children (LSAC) dress rehearsal sample, the general population and schools in the Melbourne metropolitan region. Forty-one children aged 11 to 13 years, 40 parents and 9 teachers shared their views and experiences during discussions guided by a facilitator. Key findings indicated that the discussion groups presented a significant opportunity to ‘touch base’
with the LSAC target populations for Wave 5. In broad terms, much of the content already developed for Wave 5 was raised as being important during the discussion groups with 12 to 13 year olds and their parents for example, the transition to secondary school, substance use, puberty, sexuality, antisocial behaviours, bullying, body image and friendships. The discussions also suggested the importance of assessing this age group’s use of media and technology for social networking, given the current significance of these tools for connecting with friends and enhancing not only belongingness and identity but also peer influence. In summary, some of the information provided indicated that the direction and development of Wave 5 content and methodology is appropriate, whereas other reporting suggested that further work is required well before the Dress Rehearsal to ensure that the information that is collected taps additional key relevant issues and is ‘pitched’ at the appropriate developmental stage. The outcomes of this qualitative research highlighted the challenges that longitudinal research faces. Consultation with respondents is essential to ensuring that the research design and methodologies employed translate into an enjoyable, meaningful and engaging experience for participants of all ages, which in turn reduces attrition in longitudinal studies.
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