



Te Tari Whakamātau Hinekarō
Department of Psychology

Psycolloquy 2022

The Department of Psychology's annual research symposium featuring short presentations by research students and special guests

09 December 2022
William James Building
Room 2.03 and Zoom

Keynote Presenter

This year we are pleased to have Dr Armon Tamatea give the keynote address titled:

An Ecologist's Guide to Prison Violence: understanding and embracing the Complexities of Institutional Aggression

Armon (Rongowhakāta; Te Aitanga-a-Māhaki) is a clinical psychologist who served as a clinician and senior research advisor for Ara Poutama Aotearoa/Dept of Corrections (New Zealand) before being appointed senior lecturer in psychology at the University of Waikato. He has worked extensively in the assessment and treatment of violent and sexual offenders, and contributed to the design and implementation of an experimental prison-based violence prevention programme for high-risk offenders diagnosed with psychopathy. Armon is the lead researcher for Nga Tūmanakotanga, a multi-year MBIE-funded research programme that aims to understand and reduce prison violence in New Zealand. His research interests include institutional violence, psychopathy, New Zealand gang communities, and exploring culturally-informed approaches to offender management. He was also president of the Australian and New Zealand Association for the Treatment of Sexual Abuse (ANZATSA) from 2018-2021. Armon currently divides his professional time between research, teaching, supervision, and clinical practice in the criminal justice arena.

Psych colloquy 2022 Organiser

Dr Narun Pat

Special thanks to

Professor Jamin Halberstadt

Dr Libby Schaughency

Dr Tracy Perry

Lynne Ando

Department of Psychology Admin

Department of Psychology Kaiāwhina

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Zoom Link

<https://otago.zoom.us/j/3885131131?pwd=NkxtTDZYU0hIQ1RYWktKbUITWkNDdz09>

Meeting ID: 388 513 1131

Password: Psychology

OPENING

9.00 am **Karakia**

9.15 am KEYNOTE ADDRESS

Armon Tamatea

An Ecologist's Guide to Prison Violence: understanding and embracing the Complexities of institutional Aggression

10.15 am MORNING TEA

10.45 am **Yuanyuan He**

Peripheral Gene Therapy for Alzheimer's Disease

11.00 am **Claudia Ousset**

Teen Sleep and Driving

11.30 am **Chris Linton**

Do the Clinical Psychology Programmes Fulfil Their Obligations to Te Tiriti

11.45 am **Navdeep Kaur**

Differential Perception of Buddha Art across Time, Culture and Location

12.00 pm **Cassie Ransom**

Psychology of Privacy

12.15 pm LUNCH BREAK

1.15 pm **Mille Johnston**
Tempus fugit: Neural correlates of time estimation in crows

1.45 pm **Ryan Hartman**
Dualism, Religiosity and Health

2.00 pm **Elizabeth Dovenberg**
Physical activity experiences of autistic individuals

2.15 pm **Yifan Zhang**
Exercise and emotion regulation

2.30 pm AFTERNOON TEA

3.00 pm **Jai Whelan**
MDMA User Harm Reduction in Aotearoa New Zealand

3.15 pm **Amber Lim**
“Because I am your parent and I said so!”: Examining parents’ social attitudes and their parenting styles

3.30 pm **Sean Marshall**
Life Stories and Well-Being in Emerging Adulthood

3.45 pm **Isabelle Swearingen**
Educator-Child Interactions in Early Childhood Classrooms: What is the Contribution of Setting?

We would like to thank the Department of Psychology
for supporting the Department’s presentation day

An Ecologist's Guide to Prison Violence: Understanding and embracing the Complexities of institutional Aggression

A. Tamatea

*Te Puna Haumarua New Zealand Institute for Security and Crime
Science, University of Waikato*

Prisons are complex environments that involve a variety of social, legal, moral, cultural, spatial, emotional and political forces. Furthermore, interpersonal violence and aggression is widely recognised as a reality in prisons across the globe which poses a ready-made 'problem' that demands 'solving'. Traditional perspectives of prison violence have emphasised internal/external/situational attributions as an explanatory principle, and while these theories serve institutional inquiries that concern assessment and intervention of institutional disruption, they are also incomplete. Violence in prisons has multiple drivers that relate to its causes and control, which means that simple solutions at one level (e.g., policy) or another (e.g., individual treatment) are likely to be ineffective in and of themselves. Indeed, the pervasiveness and seeming inevitability of violent incidents in prison spaces suggests that prison violence constitutes a 'wicked problem'. By presenting a view of prisons as ecosystems, I argue that the conceptual lens needs to zoom-out wider than assessing individual characteristics of prisoners or site conditions and should include local knowledge (cultural and historical), whānau and the wider community as important elements in redefining violence in these spaces. Drawing from over twenty years of clinical experience and applied research in Aotearoa prisons, this presentation also highlights the importance of a culturally-accountable philosophy of care, Indigenous ways of being, and especially the priorities of Indigenous stakeholders in promoting safety and wellbeing for those who reside and work in our prisons.

Peripheral Gene Therapy for Alzheimer's Disease

Y. He^{1,2,3}; B. Mockett^{1,3}, L. Schweitzer^{2,3}, K. McDonald^{2,3}, S. Sateesh^{1,3}, O. Jones^{1,3}, S. Hughes^{2,3}; W. C. Abraham^{1,3}

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There is no effective treatment for Alzheimer's disease (AD). Soluble amyloid precursor protein-alpha (sAPP α) has promising therapeutic potential. However, E1, a small peptide fragment of sAPP α , may hold even stronger translational potential, particularly if coupled to a cell-penetrating chaperone. AAV-PHP.eB, which readily crosses the blood-brain barrier in C57/BL6 mice, may be a useful vector for delivering E1 to the brain. Accordingly, this project aimed to test AAV-PHP.eB-mediated expression of HA-HA-sAPP α or chaperone-HA-HA-E1 as a peripheral gene therapy in the APP^{swe}/PS1^{dE9} mouse model of AD.

First, to understand the functionality of different peptides, LTP persistence was tested in area CA1 of hippocampal slices from 16-23-month-old female wild-type (WT) and transgenic (Tg) mice. LTP persistence was significantly enhanced by 1 nM E1 and HA-HA-E1 in WT mice, and by chaperone-HA-HA-E1 in both genotypes. To test the therapeutic effects of AAV-PHP.eB-HA-HA-sAPP α versus AAV-PHP.eB-chaperone-HA-HA-E1, 6-month-old WT or Tg mice were given a single tail vein injection and tested 3 months later. Results showed that both HA-HA-sAPP α and chaperone-HA-HA-E1 completely rescued LTP in the Tg mice. Moreover, both treatments dramatically reduced the amyloid plaque load in the hippocampus and frontal cortex.

These findings provide a promising novel peripheral gene therapy approach for reducing AD severity.

Teen Sleep and Driving

C. Ousset

Department of Psychology, University of Otago

There is considerable evidence that most teens are not achieving the recommended amount of sleep for optimal day-time functioning (Hirshkowitz et al., 2017). According to a recent nationwide survey, 49% of New Zealand teens do not get enough sleep due to factors such as insomnia and/or social demands (Galland et al., 2020). Consequently, teen sleep loss is a public health concern, leading to a constellation of negative health outcomes. These consequences include psychosocial health, weight status, risk-taking, and poor driving. Risk-taking while driving can have dangerous and life-threatening consequences. Despite constituting the smallest proportion of road users in NZ, young people are at the highest risk of being involved in a crash, and this trend is well-documented globally (Rusnac et al., 2019). Factors that may exacerbate risky behaviours with implications of road crashes are sensation seeking, fatigue, thinking and personality style, and inattention. This presentation summarizes the findings of a recent survey investigating NZ teen sleep habits and driving, and forms the basis for further exploration of the mediating factors. Together, these studies will aid in the design of a teen sleep intervention that we hope will improve teen risky driving behaviours and daytime functioning.

Do the Clinical Psychology Programmes in Aotearoa New Zealand Fulfil their Obligations to Te Tiriti?

C. Linton

Department of Psychology, University of Otago

In 1840 Māori Chiefs and the British Crown signed Te Tiriti o Waitangi, which promised a bicultural approach to the governance of Aotearoa New Zealand. However, since the signing of Te Tiriti Māori have suffered due to the systemic effects of colonisation. One area where the effects of colonisation are blatantly clear is the mental health of Māori in Aotearoa New Zealand. Compounding this issue, and what forms the focus of the current presentation, is that the mental health system does not meet or reflect the needs of Māori. To explore this issue, in Study 1, I conduct an analysis of the sociodemographic profile of students that are in the clinical psychology training programmes in Aotearoa New Zealand. Building on Study 1, in Study 2 I employ qualitative methods to explore the thoughts, feelings, and experiences of past and current Māori clinical psychology students. The results of study 1 indicate that Māori are under-represented within the clinical psychology training programmes in Aotearoa New Zealand. Also, that the current enrolment rates for Māori will not effectively address the inequities within the profession. The results of Study 2 indicate that Māori students in clinical psychology have many negative experiences that cause them harm and distress. Furthermore, the current programmes are not culturally competent and fail to address issues relating to Māori mental health and well-being. In summary, the current practices within the clinical psychology programmes do not fulfil their obligations under Te Tiriti. Possible interventions that could be implemented to address these issues include implementing an equity enrolment pathway, properly integrating Māori content, the appointment of Māori staff, and consulting with Māori communities.

Differential Perceptions of Buddha's Art

N, Kaur¹, J. Halberstadt¹ and J. Watts²

¹Department of Psychology, University of Otago

²Religion Programme, University of Otago

Humans have documented their religious beliefs in their art for millennia, using various media and styles to represent supernatural entities and events. I propose that, as in human faces and bodies, the artistic style of such representations can influence the perception of what they represent. A preliminary study of 210 Indian participants found that rounder statues of the Buddha were seen as depicting a warmer, friendlier, and more loving god, compared to statues with more pointed features. Moreover, round and pointed statues tended to be made with different materials (e.g., shist versus bronze), sourced from different geographic locations. Thus, it is possible that arbitrary factors, such as the availability and cost of materials, predict and potentially cause differential perceptions of the Buddha's personality over time.

What is privacy?

C. Ransom and J. Halberstadt

Department of Psychology, University of Otago

The concept of privacy is highly salient in contemporary discussions about our evolving technological capacities to obtain and use collected online. However, privacy has been historically neglected within the field of psychology (Stuart et al., 2019). Most of the influential research on privacy has been conducted in the fields of law, philosophy, computer science and communication studies. Further, existing evidence from the social and behavioural sciences focuses on understanding privacy *behaviour* in online contexts, rather than on understanding what privacy *is*. Definitions of privacy in such behavioural papers have been adopted from philosophical accounts, or early ad hoc psychological theories that have not been subjected to adequate empirical investigation. For example, Altman (1975) defined privacy as ‘selective control of access to the self’. According to Altman’s account, we would expect privacy appraisals to be associated with perceived control. However, this hypothesis has never been empirically demonstrated. In the present research project, we intend to investigate the psychological concept of information privacy, seeking to understand what types of information people tend to evaluate as private, whether these evaluations are stable or dynamic, and what psychological mechanisms underlie these intuitions.

Tempus fugit: Neural correlates of time estimation in crows

M. Johnston, M. Kirschhock, and A. Nieder

Institute of Neurobiology, University of Tübingen, Germany

Flexibly monitoring time over a period of seconds or minutes, an ability known as “interval timing”, is critical for many goal-directed behaviours in both humans and non-human species, e.g., optimal foraging in birds. The neural mechanisms underlying interval timing, and more specifically time estimation, have remained somewhat elusive in non-human species, especially birds. A putative candidate region for such temporal information in birds is the associative endbrain area termed the nidopallium caudolaterale (NCL), which is linked to high-level cognition. In the current experiment we recorded single-units in the NCL from two crows trained on a delayed response task whereby arbitrary visual stimuli cued the subject how long to wait before making a response (1.5, 3, or 6 s). Timing behaviour of the crows reflected Scalar Expectancy Theory, such that variation in time estimations increased with the increased target estimation. We found many neurons that fired differentially for the three target estimations. Additionally, many neurons were modulated by the passage of time itself. Our results are the first to demonstrate how NCL neurons encode temporal information in crows, providing an important foundation for further investigation into the evolutionary constraints for time estimation in convergently-evolved intelligent vertebrate brains.

Dualism Religiosity and Health

R. Hartman and J. Halberstadt

Department of Psychology, University of Otago

Social cognition researchers suggest that Cartesian substance dualism (the philosophical position that the mind and body are two distinct phenomena) predicts religiosity. Furthermore, endorsement of dualism has been correlated with relatively worse health outcomes than non-dualists. Finally, contemporary health researchers strongly indicate religiosity predicts positive health attitudes and behaviours. The current study (in progress) is an initial examination of the relationship between dualism and health. Two-hundred volunteers from an online crowdsourcing site, (e.g., Amazon's "Mechanical Turk") will be asked to list healthful or unhealthful food items that they have consumed in the past seven days, and then complete a modified version of the Short Multidimensional Inventory Lifestyle Evaluation (Vicent Balanzá-Martínez et al., 2021), a measure of general wellbeing. Next, participants will complete a modified version of the Dualism Scale (Stanovich, 1989), a scale that examines participants' endorsement of dualism, monism or emergentism (the belief in the emergence of the mind from the physical brain). Finally, participants will record their age, gender, nationality, religious affiliation, and ethnicity. We hypothesize that participants who recall healthful behaviours will be less likely to endorse dualism (i.e., more likely to see a link between the body and the mind).

Physical activity experience of autistic individuals in Dunedin: A qualitative study

E. Dovenberg

Department of Psychology, University of Otago

Background: Autistic people generally engage in less physical activity (PA) than neurotypical peers and may not experience its benefits. PA facilitators include activity enjoyment and importance, but how/why autistic individuals find PA fun and meaningful is not well understood. **Aim:** This study explored autistic folks' PA experiences from multiple perspectives. **Methods:** Semi-structured interviews occurred with five autistic individuals, four support persons, and one health programme coordinator. Interviews were transcribed and analysed thematically. An audit trail and member-checking enhanced study rigour. **Results:** I identified one overarching theme – *PA as a navigation process* – and four subthemes – *pre-participation negotiation; creative, immersive engagement; balancing pros and cons; PA supports and services*. Results were interpreted using the PERMA theory of well-being. One participant became absorbed in her imagination while exercising. Another considered figure-skating as “therapy.” However, exclusion, non-acceptance, and masking in PA contexts were also described. Support persons and the programme coordinator acknowledged PA benefits but readily identified gaps in programmes or service delivery. **Conclusion:** This study is one of the first to explore PA and autism in Aotearoa New Zealand. Results illustrate how participants navigated through PA involvement. Practical implications are outlined which highlight ways that participants' PA experiences can be supported and enhanced.

Does acute exercise benefit emotion regulation? Electrophysiological evidence from affective ratings and implicit emotional effects on cognition

Y. Zhang

Department of Psychology, University of Otago

Negative affect impacts cognition, and sometimes may interfere with cognitive function. Furthermore, emotion regulation is thought to play an important role in easing the suffering from negative affect. However, whether acute exercise could ease the emotional interference caused by unconscious affect on cognitive control, remains to be investigated. To test this, we used behavioral measures combined with event-related potentials (ERPs) to specifically investigate (i) the impacts of negative affect evoked by implicit cues on conflict inhibition (Flanker task), and (ii) whether acute exercise could mitigate these effects. Furthermore, we examined (iii) the impact of acute exercise on frontal alpha asymmetry as an index of cognitive emotional down-regulation to emotional stressors. Forty young women (age range from 18 to 26) were randomly assigned to either a control group (n = 20) or an exercise group (n = 20), and a repeated-measures design with a space of one week between measures was conducted. Results demonstrated that negative Flanker trials produced larger N1 amplitude but smaller N200 amplitude than neutral trials; furthermore, acute exercise could mitigate emotional effects on N1. However, significant effects of acute exercise on the resting and responding frontal alpha asymmetry were not found. The distinct direction of the impacts of negative affect on cognition are discussed together with implications about the effects of attention allocation on exercise-enhanced emotion regulation.

MDMA User Harm Reduction in Aotearoa

J. Whelan¹, G. Noller², & R. Ward¹

¹Department of Psychology, University of Otago

²Bioethics Centre, University of Otago

3,4-Methylenedioxyamphetamine (MDMA) is a drug of high prevalence in Aotearoa, making MDMA-related harm reduction behaviour particularly important. Furthermore, drug-checking was legalised in Aotearoa in 2021, yet little research has investigated harm reduction and drug-checking behaviours of MDMA users. We used an online survey to assess MDMA user harm reduction behaviours (e.g., physical caution, planning use), reagent testing, and use of drug-checking service, KnowYourStuffNZ (KYSNZ). In total, 933 people completed the survey (61.4% female, 14.4% Māori, aged 18-65, *Median* = 24). Frequency of various harm reduction behaviours differed between sexes. Reagent testing of MDMA had been conducted by 41.6% of the sample, and 29% of the sample had used KYSNZ. Of KYSNZ users, 72% reported learning at least a moderate amount about harm reduction, and 53% reported changing their behaviour because of the service. 87.9% who did not change their behaviour thought their drug taking was safe. Reasons for not using the KYSNZ service were primarily lack of availability in local area or at relevant events, and lack of concern with substance quality. The findings highlight potential targets for harm reduction education and interventions and emphasise the need for greater availability of readily accessible drug-checking services in Aotearoa.

“Because I am your parent and I said so”: Examining parents’ social attitudes and their parenting styles

A. Lim and T. Ruffman

Department of Psychology, University of Otago

A vast amount of research evidence indicates that children develop social attitudes that are similar to those of their parents. When using general measures of social attitudes, such as social dominance orientation (SDO), right-wing authoritarianism (RWA), and prejudice, studies show that parents’ and children’s attitudes were correlated. However, the mechanisms behind the intergenerational transmission of attitudes remain largely unexplained. Since it was speculated that the origins of RWA can be traced back to one’s relationship with their parents, the aim of this ongoing study is to assess whether parents’ social attitudes are related to their parenting style. For the first phase of this study, 80 Malaysian parents completed measures of SDO, RWA, and parenting style. As predicted, mothers with higher RWA scores were more likely to report authoritarian parenting styles. This link was not observed for the fathers. Both mothers’ and fathers’ SDO scores were not correlated with authoritarian parenting style. The second phase of this study will involve data collection from a New Zealand sample to allow comparisons between cultural parenting styles. Additionally, their children’s social attitudes and emotion recognition will be assessed.

Autobiographical Narratives and Well-Being in Emerging Adulthood

S. Marshall

Department of Psychology, University of Otago

The primary objective of the present study was to examine specific aspects of emerging adults' (18–25 year olds) autobiographical memories as they relate to their sense of identity and psychological well-being. As such, the current work draws primarily from narrative psychology research, but also draws from both personality and health psychology. I will present recently published findings from a longitudinal experiment (Growing Memories) which demonstrated that mother-child reminiscing in early childhood is associated with greater autobiographical reasoning in turning-point narratives, and better well-being, two decades later. I will also present preliminary findings from an ongoing experiment comparing the effects of turning-point narratives to expressive writing.

Educator-child interactions in early childhood classrooms: What is the contribution of setting?

I. Swearingen and E. Reese

Department of Psychology, University of Otago

The quality of language that children are exposed to in early childhood has been linked with important developmental outcomes including vocabulary size, which predicts later school success. Although the relationship between parental language and child learning outcomes is well-documented, less research has been conducted with children and their early childhood educators. The current study investigated the quality of educators' talk in early childhood centres and more specifically, how educators' language quality varied based on the setting. As a part of a larger RCT called *Kia Tīmata Pai* (To Start Well), toddlers ($n = 94$) and their educators ($n = 64$) from 24 early childhood centres across Aotearoa New Zealand were filmed during their day-to-day activities. We collected footage across 5 routines: kai time, group time, play time, nappy change, and book reading. Overall, educators used low rates of past and future event references and used more conversation-directing utterances than conversation-eliciting utterances. Educators used significantly more past event references during book time compared to group time. Kai time had lower rates of both conversation eliciting and conversation directing utterances. Results can be used to inform educator training programs, such as the ongoing *Kia Tīmata Pai* intervention study.

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