

# ROYCE-HARDER RESEARCH CONFERENCE



**Thursday, April 5, 2018 - Friday, April 6, 2018**

**Edmonton Clinic Health Academy (ECHA) 2-140**

**DAY 1 - Brian Harder Honours Day & Undergraduate Research Showcase**  
1:00 PM - 5:00 PM



**Keynote Address:** Dr. Sandy Jung

MacEwan University

***The Risky Business of Sexual and Intimate Partner  
Violence Prevention***

**DAY 2 - Joseph R. Royce Psychology Conference**  
8:30 AM - 5:00 PM



**Keynote Address:** Dr. Sara Hart

Florida State University

***Precision Education Initiative: Moving Towards  
Personalized Education***



**Invited Internal Speaker:** Dr. Jeff Bisanz

University of Alberta

***Improving Children's Understanding of the Equal Sign: From  
Experimental Control to Chaos and... Maybe Beyond?***



UNIVERSITY OF ALBERTA  
DEPARTMENT OF PSYCHOLOGY

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# PROGRAM IN BRIEF

## **DAY 1 - Brian Harder Honours Day & Undergraduate Research Showcase April 5, 2018**

<b>1:00 - 1:50 PM</b>	Keynote Address: <b>Dr. Sandy Jung</b>
<b>2:00 - 3:00 PM</b>	Scientific Café: Third Year Honours Thesis Proposals
<b>3:00 - 4:00 PM</b>	Fourth-Year Honours Blitz Talks
<b>4:00 - 5:00 PM</b>	Undergraduate Research Showcase Poster Presentations and Reception

## **DAY 2 - Joseph R. Royce Psychology Conference April 6, 2018**

<b>8:00 - 8:45 AM</b>	Poster Setup & Coffee
<b>9:00 - 10:15 AM</b>	Keynote Address: <b>Dr. Sara Hart</b>
<b>10:15 - 10:45 AM</b>	Poster Presentations & Coffee
<b>10:45 - 11:45 AM</b>	Oral Presentations Session 1
<b>11:45 - 12:45 PM</b>	Poster Presentations and Lunch
<b>12:45 - 1:45 PM</b>	Invited Symposium
<b>2:00 - 3:00 PM</b>	Royce Scientific Café
<b>3:00 - 3:15 PM</b>	Poster Presentations & Coffee
<b>3:15 - 4:00 PM</b>	Oral Presentations Session 2
<b>4:00 - 5:00 PM</b>	Invited Internal Speaker: <b>Dr. Jeff Bisanz</b>

# DAY 1 KEYNOTE ADDRESS

1:00 - 1:50 PM | Room: ECHA 2-140

## ***The Risky Business of Sexual and Intimate Partner Violence Prevention***

**Dr. Sandy Jung**

*Associate Professor  
Department of Psychology  
MacEwan University*

Risk and threat assessments have become a core task for professionals in the criminal justice system to make offender management decisions. Canadian researchers have been influential in the field of forensic psychology. A theory of criminal conduct known as the Risk-Need-Responsivity (RNR) model, developed by two Canadian researchers (Andrews & Bonta, 2010), guides offender management and rehabilitation. RNR represent three guiding principles that advises criminal justice professionals on who should be treated, what should be targeted in treatment, and how the offender should be engaged in treatment. The first principle, the risk principle, asserts that the level of service must match an offender's risk level. Therefore, effective interventions are those that target higher risk offenders, and in practice, we should assign greater intensive services to higher risk offenders. In this talk, Dr. Jung will introduce the risk principle of the RNR model and how the RNR principles can inform law enforcement by maximizing positive outcomes and reducing further victimization. She will present research that has led to empirically-validated practices and highlight how these practices can further prevent violence in the community.

# SCIENTIFIC CAFÉ: Third Year Honours Thesis Proposals

**Café Session 1 (2:00 - 2:15 PM and 2:15 - 2:30 PM)**

**C1 Fishing under pressure: The effects of time pressure on partial inhibition and its neural correlates in preschool children**

Room: ECHA 1-163

*D. S. Heath & S. A. Wiebe (Psychology Department, University of Alberta)*

**C2 Is memory in the music? The cognitive architecture of working memory**

Room: ECHA 1-153

*R. L. Q. Gagnon & E. Nicoladis (Department of Psychology, University of Alberta)*

**C3 What do you see in a face? How people see and describe emotions in a face**

Room: ECHA 1-152

*Authors: Alexa Byrd, Mursal Mohamud, Annie Porthukaran, Winta Ghebremicael (Psychology Department, University of Alberta), & Esther Fujiwara (Psychiatry Department, University of Alberta)*

**C4 The impact of Taekwondo on academic success through enhanced emotional regulation**

Room: ECHA 1-152

*A.M. Domingo & E. Nicoladis (Psychology Department, University of Alberta)*

**C5 Differences in the emotional depths of first and second languages in bilinguals**

Room: ECHA 1-167

*K. Y. Huang & E. Nicoladis (Psychology Department, University of Alberta)*

**C6 Communication accommodation theory in Lebanon**

Room: ECHA 1-153

*Wajed Nadine El-Halabi (Psychology Department, University of Alberta)*

**C7 Intergroup Processes and the Relationship Between Subgroup Identity Threat and Leadership Rhetoric**

Room: ECHA 1-163

*M. P. Gawalko, Y. Ouyang, & D. E. Rast III (Psychology Department, University of Alberta)*

**C8 Visual processing of emotional face expressions in alexithymia**

Room: ECHA 1-167

*A. Porthukaran, E. Fujiwara, M. Mohamud, W. Ghebremicael, A. Byrd (University of Alberta)*

**Café Session 2 (2:30 - 2:45 PM and 2:45 - 3:00 PM)**

**C9 Risk-factor analysis: Differentiating between violent and non-violent offending in adolescence**

Room: ECHA 1-163

*A. McIvor, R. Frenzel & C. Westbury (Psychology, University of Alberta)*

**C10 Double labeling of immediate early gene expression in response to songs and calls in Zebra Finches (*Taeniopygia guttata*)**

Room: ECHA 1-163

*Juliana Montoya Sanchez, Erin N. Scully, Christopher B. Sturdy*

**C11 Red vs. Blue: How nonapeptides influence behavioural variation between *Pelvicachromis pulcher* colour morphologies**

Room: ECHA 1-152

*Z. Kruschke (Psychology Department), B. Hope (Neuroscience and Mental Health Institute) & P. Hurd (Psychology Department, University of Alberta)*

**C12 Stigma or identity threat? An exploratory investigation into factors contributing to the formation of sexual orientation obsessive-compulsive disorder**

Room: ECHA 1-153

*C. Lindeman & P. Hurd (Psychology Department, University of Alberta)*

**C13 Where are you really from?: Identity denial and discrimination as implications of reflected appraisals for second generation immigrants**

Room: ECHA 1-153

*P. Phiri & K. A. Noels (Psychology Department, University of Alberta)*

# FOURTH YEARS' BLITZ TALKS

**3:00 - 4:00 PM | Room: ECHA 2-140**

Fourth-year honours students have 3 minutes to present the key elements of their research, detailed fully in the subsequent poster session. See the Showcase Poster Presentations section below for abstracts and more details.

Blitz Talk 1 (Showcase Poster: P1)

**Empathy and compassion's effect on the resolution of the requirements of mourning**

*Daniel Ennett*

Supervisor(s): Dr. Takahiko Masuda

Blitz Talk 2 (Showcase Poster: P2)

**The Influence of Reference Frame on Spatiotemporal Metaphor Comprehension**

*C. Y. Agyemang*

Supervisor(s): Dr. Chistina Gagne and Dr. Thomas Spalding

Blitz Talk 3 (Showcase Poster: P3)

**I hear, therefore I perceive: Effects of speech accent on perception of physicians**

*C. L. C. Baquiran*

Supervisor(s): Dr. Elena Nicoladis

Blitz Talk 4 (Showcase Poster: P4)

**The Effects of Self-Construal and Gender Role Identification on Social Anxiety across Cultures**

*B. S. Hoy*

Supervisor(s): Dr. Takahiko Masuda

Blitz Talk 5 (Showcase Poster: P5)

**What is the Relationship Between Alexithymia and Schizotypy in a Non-Clinical Population?**

*Ashley Huang*

Supervisor(s): Dr. Peter Hurd

Blitz Talk 6 (Showcase Poster: P6)

**The effects of uncertainty on perceptions of competence and support for male and female leaders**

*M. Kaczmar*

Supervisor(s): Dr. David Rast

Blitz Talk 7 (Showcase Poster: P7)

**The safety and efficacy of arginine-rich polypeptide R18D following intracerebral hemorrhage**

*Lane Liddle*

Supervisor(s): Dr. Fred Colbourne

Blitz Talk 8 (Showcase Poster: P8)

**Narratorial attitude can reduce the consistency effect**

*C. Linden*

Supervisor(s): Dr. Peter Dixon

Blitz Talk 9 (Showcase Poster: P9)

**Identification with Extremist Groups: How Important Is Entitativity?**

*Angela C. Ma*

Supervisor(s): Dr. David Rast

Blitz Talk 10 (Showcase Poster: P10)

**Focal object size and attention patterns between Western and East Asian cultures**

*R. Mahdi*

Supervisor(s): Dr. Takahiko Masuda

Blitz Talk 11 (Showcase Poster: P11)

**Language Use and Situated Ethnic Identity**

*Jayasree Narayanan*

Supervisor(s): Dr. Kimberly Noels

Blitz Talk 12 (Showcase Poster: P12)

**School Climate and Adolescent Internalizing Problems**

*T. J. L. Pidner*

Supervisor(s): Dr. Wendy Hoglund

Blitz Talk 13 (Showcase Poster: P13)

**Sexual Orientation and Peer Victimization in Adolescence**

*Devyn Rorem*

Blitz Talk 14 (Showcase Poster: P14)

**Children's development of musical constructions and learnt affective meaning**

*R. S. A. Stuber*

Supervisor(s): Dr. Elena Nicoladis

Blitz Talk 15 (Showcase Poster: P15)

**The Effect of Relative Rank Feedback on Risky Decision-Making**

*V. Tran*

Supervisor(s): Dr. Marcia Spetch

Blitz Talk 16 (Showcase Poster: P16)

**Looking at the association between inhibitory control, math, and literacy skills in childhood.**

*M. Warren*

Supervisor(s): Dr. Sanda Wiebe

# UNDERGRADUATE RESEARCH SHOWCASE:

## Poster Presentations

**P1 Empathy and compassion's effect on the resolution of the requirements of mourning**

*Daniel Ennett (Culture and Cognition Lab, Psychology Department, University of Alberta), Takahiko Masuda (Culture and Cognition Lab, Psychology Department, University of Alberta), Nigel Mantou Lou (Intercultural Communication Lab, Psychology Department, University of Alberta)*

**P2 The Influence of Reference Frame on Spatiotemporal Metaphor Comprehension**

*C. Y. Agyemang (Psychology Department, University of Alberta), C. L. Gagné (Psychology Department, University of Alberta), T. L. Spalding (Psychology Department, University of Alberta)*

**P3 I hear, therefore I perceive: Effects of speech accent on perception of physicians**

*C. L. C. Baquiran & E. Nicoladis (Psychology Department, University of Alberta)*

**P4 The Effects of Self-Construal and Gender Role Identification on Social Anxiety across Cultures**

*B. S. Hoy & H. Lee (Psychology Department, University of Alberta)*

**P5 What is the Relationship Between Alexithymia and Schizotypy in a Non-Clinical Population?**

*Ashley Huang, Peter Hurd*

**P6 The effects of uncertainty on perceptions of competence and support for male and female leaders**

*M. Kaczmar & D. Rast (Psychology Department, University of Alberta)*

**P7 The safety and efficacy of arginine-rich polypeptide R18D following intracerebral hemorrhage**

*Lane Liddle, Ryan Reinders, Cassandra Wilkinson, Fred Colbourne*

**P8 Narratorial attitude can reduce the consistency effect**

*C. Linden & P. Dixon (Psychology Department, University of Alberta)*

**P9 Identification with Extremist Groups: How Important Is Entitativity?**

*Angela C. Ma, David E. Rast III (Psychology Department, University of Alberta), Amber M. Gaffney (Psychology Department, Humboldt State University)*

**P10 Focal object size and attention patterns between Western and East Asian cultures**

*R. Mahdi (Department of Psychology, University of Alberta), K. Ishii (Department of Psychology, Kobe University), T. Masuda (Department of Psychology, University of Alberta)*

**P11 Language Use and Situated Ethnic Identity In Singapore**

*Jayasree Narayanan, Kimberly A. Noels*

**P12 School Climate and Adolescent Internalizing Problems**

*T. J. L. Pidner, S. John, W. L. G. Hoglund*



**P13 Sexual Orientation and Peer Victimization in Adolescence**

*Devyn Rorem, Saira John, Wendy Hogg*

**P14 “This is a Titanic Song”: How Children Learn Emotions in Music Through Familiarity**

*R. Stuber & E. Nicoladis (Psychology Department, University of Alberta)*

**P15 The Effect of Relative Rank Feedback on Risky Decision-Making**

*V. Tran & M. L. Spetch (Psychology Department, University of Alberta)*

**P16 Looking at the association between inhibitory control, math, and literacy skills in childhood.**

*M. Warren, D. Vranitsidis, L. Predy, N. Ali, M. Khoei, & S. A. Wiebe*

**P17 A two year retrospective analysis: Why are our veterans falling?**

*V. Tran (Psychology Department, University of Alberta)*

**P18 Effects of sex and sport participation on mental rotation and movement imagery ability**

*B. Diduck (Psychology Department, Concordia University of Edmonton) & Y. J. Wong (Psychology Department, Concordia University of Edmonton)*

**P19 Parents point more when bilingual children’s language skills are weak**

*Shania Horn, Elena Nicoladis, & Diane Poulin-Dubois (Psychology Department, University of Alberta; Psychology Department, Concordia University)*

**P20 Abstract Representation of Passives in Young Bilingual Children**

*Sera Sajeev and Elena Nicoladis (Department of Psychology, University of Alberta)*

**P21 How can I succeed in a second language course? Motivation as a predictor of grades in second language courses**

*Maria Choi, Coleen Eiman, Khadija Malik, Tehseenah Zahrah, Poliana Barbosa, Catherine Zoleta, Elena Nicoladis (Psychology Department, University of Alberta)*

**P22 Bilinguals Select Easy-to-Access Words on a Semantic Verbal Fluency Task**

*Olusegun Akinniyi, Aiman Khan, and Elena Nicoladis (Psychology Department, University of Alberta)*

**P23 Cup or Mug: An ERP investigation of the effect of language on cognition**

*R. Mancuso, J. E. M. Scanlon, T. Masuda, K. E. Mathewson (Psychology Department, University of Alberta)*

**P24 Bilingual and monolingual children use the mutual exclusivity principle to learn new words**

*Julia Wood & Elena Nicoladis (Psychology Department, University of Alberta)*

**P25 Value biases in human memory and alexithymia**

*Courtney L. Stolz (Departments of Biology and Psychology, University of Alberta), Sucheta Chakravarty (Department of Psychology, University of Alberta), Esther Fujiwara (Department of Psychiatry, University of Alberta) and Jeremy B. Caplan (Department of Psychology, University of Alberta)*

**P26 Eye preference in speeded emotion recognition: alexithymia and eating disorders**

*A. Lussoso (Undergraduate Student, University of Alberta), D. Rochman (Department of Psychiatry, University of Alberta), E. Fujiwara (Department of Psychiatry, University of Alberta), R. Sangster (Undergraduate Student, University of Alberta), M. Xia (Undergraduate Student, University of Alberta), L. Ostolosky (Department of Psychiatry, University of Alberta)*

**P27 The effect of word imageability on the electrophysiological correlates of association-memory**

Nicole L. Dittmann (Neuroscience and Mental Health Institute, University of Alberta ), Hanna Warawa (Department of Psychology, University of Alberta), Yvonne Y. Chen (Baylor College of Medicine), & Jeremy B. Caplan (Neuroscience and Mental Health Institute, University of Alberta & Department of Psychology, University of Alberta)

**P28 Anger Perception in Alexithymia**

- 1) Mursal Mohamud (Department of Psychology, University of Alberta)
- 2) Annie Porthukaran (Department of Psychology, University of Alberta)
- 3) Winta Ghebremicael (Department of Psychology, University of Alberta)
- 4) Alexa Nydegger (Department of Psychology, University of Alberta)
- 5) Esther Fujiwara (Department of Psychiatry, University of Alberta)

**P29 Alexithymia and Autistic Traits – shared and unique relationships with disordered eating**

Yu Yuan Liu, Rahim Marani, Daniela Gomez, Esther Fujiwara

**P30 Creative metaphoricity and aesthetically-significant personal remembering**

Victoria Pearson, Shawn Douglas (Department of Psychology, University of Alberta), Don Kuiken (Department of Psychology, University of Alberta)

**P31 The Effect of Immigration Class on Cultural Identities of Chinese Migrant Caregivers in Canada**

Shu Han (Teina) Wang and Kimberly A. Noels (Psychology Department, University of Alberta)

**P32 The Road to Mobile and Affordable EEG Experimentation**

A. A. Rajaram, G.D. Splinter, J.W.P Kuziek, (Psychology Department, University of Alberta) & K.E. Mathewson (Psychology Department, University of Alberta, Neuroscience and Mental Health Institute, Faculty of Medicine and Dentistry, University of Alberta)

# DAY 2 KEYNOTE ADDRESS

**9:00 - 10:15 AM | Room: ECHA 2-140**

***Precision Education Initiative:  
Moving Towards Personalized Education***

**Dr. Sara Hart**

Florida State University

In this talk, I will summarize findings from two twin projects focused on examining the genetic and environmental influences on reading and math development in childhood. I will then discuss my efforts to make behavioral genetics meaningful for the classroom, cumulating into the "Precision Education Initiative".

# ORAL PRESENTATIONS: SESSION 1

10:45 - 11:45 AM | Room: ECHA 2-140

**T1 Exploring the Effect of Short Chain Fatty Acids on Gut-Brain Axis using a Microglial Cell Model**

*T. Chen, Dr. M. Churchward (Department of Psychiatry, University of Alberta), Dr. D. Kao (Division of Gastroenterology, University of Alberta), Dr. K. Todd (Department of Psychiatry, University of Alberta)*

**T2 Longitudinal assessment of the behavioural effects of individual radio frequency identification (RFID) tagging in *Pelvicachromis Pulcher***

*K. Wonsiak (Psychology Department), B. Hope (Neuroscience and Mental Health Institute), & P. Hurd (Psychology Department, University of Alberta)*

**T3 Preclinical investigations in the acute post-stroke period: How does routine behavioral assessment influence recovery from intracerebral hemorrhage?**

*Lane Liddle, Ryan Reinders, Brittany Prokop, Colby Nadeau, Fred Colbourne (Department of Psychology, Faculty of Science, University of Alberta)*

**T4 Ionic dyshomeostasis after intracerebral hemorrhage**

*Cassandra Wilkinson, Brittany Fedor, Colby Nadeau, Jasmine Aziz, Paul Brar, Julia Clark, Frederick Colbourne (Psychology Department, University of Alberta and Neuroscience and Mental Health Institute, University of Alberta)*

# MAIN POSTER PRESENTATIONS

**P33 What Was Theoretical Psychology? An Answer From Treemaps Of Book Collections**

*Michael R.W. Dawson, University of Alberta*

**P34 Measurement of Working Memory in Early and Middle Childhood**

*Larissa Predy (Psychology Department, University of Alberta), Daphne Vrantsidis (Psychology Department, University of Alberta), Tieghan Baird (Psychology Department, University of Alberta), Mahsa Khoei (Psychology Department, University of Alberta), Naaila Ali (Psychology Department, University of Alberta), & Sandra A. Wiebe (Psychology Department, University of Alberta)*

**P35 Measuring Set Shifting in Early and Middle Childhood: Contributions of Mixing and Switching Costs**

*Daphne M Vrantsidis (Psychology Department, University of Alberta)  
Larissa Predy (Psychology Department, University of Alberta)*

Naaila Ali (Psychology Department, University of Alberta)  
Mahsa Khoei (Psychology Department, University of Alberta)  
Sandra A Wiebe (Psychology Department, University of Alberta)

**P36 The Role of English Use Anxiety on the Situated Ethnic Identities of International Students**

*Y. S. D. Zhang & K. Noels (Psychology Department, University of Alberta)*

**P37 Do Near Misses Influence Slot Machine Choice?**

*J.J.H. Yong, J.M. Pisklak, & M.L. Spetch (Department of Psychology, University of Alberta)*

**P38 Effects of temporal attention and color on visual detection: an EEG study**

*Sheldon, S.S. (Department of Psychology, University of Alberta), Robles, D. (Department of Psychology, University of Alberta), & Mathewson, K.E. (Department of Psychology, University of Alberta; Neuroscience and Mental Health Institute, Faculty of Medicine and Dentistry, University of Alberta)*

**P39 Working Memory as a Predictor of Second Language Oral Fluency in Adults**

*P. T. Crowshaw, R. Y. A. Pualar, E. R. M. Queiroz, M. B. Yee, P. Gonçalves Barbosa, E. Nicoladis & C. Zoleta*

**P40 The relationship between mild cognitive impairment and driving ability**

*Reyhaneh Bakhtiari, Michelle Ehmig, Stephen Langor, Joanna Scanlon, Aaron Granley, & Anthony Singhal*

**P41 ZENK expression in response to playback of full-length chick-a-dee calls in black-capped chickadee (*Parus atricapillus*)**

*Juliana Montoya Sanchez, Erin N. Scully, Shannon K. Mischler, and Christopher B. Sturdy*

**P42 Hippocampal State Influences Memory Consolidation**

*Zemina Meghji (Neuroscience and Mental Health Institute), Claire Scavuzzo (Department of Psychology), Brandon E. Hauer (Neuroscience and Mental Health Institute), Clayton T. Dickson (Neuroscience and Mental Health Institute, Department of Psychology, Department of Physiology)*

**P43 An exploratory look at the cognitive processes underlying the delay at the morpheme boundary by examining typing errors**

*M. Dang, S. Halfyard, S. Johnson, B. Rubio, C. Gagné & T. Spalding (Department of Psychology, University of Alberta)*

**P44 Judging associations without learning associations**

*S. Chakravarty & J. B. Caplan (Department of Psychology, University of Alberta)*

**P45 Delay-discounting in patients with HIV-1 infection**

*Daniela Gomez, BSc (University of Alberta, Department of Psychiatry), Deanna Nielsen (University of Alberta, Departments of Psychiatry and Psychology), Christopher Power, MD (University of Alberta, Departments of Psychiatry and Medicine; Southern Alberta Clinic, Calgary AB), M. John Gill, MBChB (University of Calgary, Department of Medicine; Southern Alberta Clinic, Calgary, AB), Noshin Koenig, BSc (Southern Alberta Clinic, Calgary, AB), Esther Fujiwara, PhD (University of Alberta, Departments of Psychiatry and Psychology)*

**P46 Ethnicity, Language, and Discrimination**

*Sharon Tahir and Jessika Skurski*

**P47 A four-facet model of subjective memory decline in non-demented aging: Selective prediction sensitivity for women**

Shannon Drouin (Department of Psychology, University of Alberta), G. Peggy McFall (Department of Psychology, University of Alberta; Neuroscience and Mental Health Institute, University of Alberta), Samantha Fu (Department of Psychology, University of Alberta), Roger A. Dixon (Department of Psychology, University of Alberta; Neuroscience and Mental Health Institute, University of Alberta)

**P48 Behavioural responses to female song playback in Black-Capped Chickadees (*Poecile atricapillus*)**

C. Montenegro (Department of Psychology, University of Alberta), W. D. Service (Department of Psychology, University of Alberta), K. A. Campbell (Department of Psychology, University of Alberta), E. N. Scully (Department of Psychology, University of Alberta), J. V. Congdon (Department of Psychology, University of Alberta), S. Mischler (Department of Psychology, University of Alberta). & C. B. Sturdy (Department of Psychology, Neuroscience and Mental Health Institute, University of Alberta)

**P49 CRITICAL AGE VS. CRITICAL PERIOD: The Identification of the Critical Period of Adaptive Social Integration When Immigrants Move to Canada**

A. N. Obiero & K. A. Noels (Psychology Department, University of Alberta)

**P50 Colonization: How it affects identity**

Allison R. Mock, Rebecca Alexander & Dr. Kimberley Noels (Psychology Department, University of Alberta)

**P51 Sketching identity changes: the patterns of Chinese immigrants' ethnic identities development**

Zhengqi Zeng, Qingyao Xue, Wanyixiong Hua, and Kimberly A. Noels (Psychology Department, University of Alberta)

**P52 Pull the triggers!: Creating Event-Related Potentials Using Video Recordings**

Jonathan W.P. Kuziek (Psychology Department, University of Alberta), Kyle E. Mathewson (Psychology Department, Neuroscience and Mental Health Institute, Faculty of Medicine and Dentistry, University of Alberta)

**P53 Classroom normative beliefs of aggression and children's friendship quality**

K. Starkell (Psychology Department, University of Alberta), B. Zatto (Psychology Department, University of Alberta), W. L. G. Hoglund (Psychology Department, University of Alberta)

**P54 Investigating the Relationship Between Hormonal Contraceptive Use and Borderline Personality, Empathy and Oxytocin Level**

Irvine, T. B. & Hurd, P. L. (Psychology Department, University of Alberta)

**P55 Exploring gender imbalance in computing science**

A. Domingo, R. Gagnon, D. Heath, K. Koh, C. Lindeman, A. Mclvor, A. Porthukaran

**P56 Leadership profiles and bystander behaviour in adolescence**

S. Markandu, K. Burke, & W. L. G. Hoglund (Psychology Department, University of Alberta)

**P57 Perceptions of Trust in Leaders: The Role of Uncertainty and Prototypicality**

Meghan Hodgson (Group Processes and Leadership Lab)

**P58 Slow-wave circuits for memory: The nucleus reuniens thalami coordinates sleep rhythms between the neocortex and hippocampus**

Brandon E. Hauer (Neuroscience and Mental Health Institute, University of Alberta), Silvia Pagliardini (Department of Physiology, Neuroscience and Mental Health Institute, University of Alberta), Clayton T. Dickson (Neuroscience



*and Mental Health Institute, Department of Physiology, Department of Psychology, University of Alberta)*

**P59 Commonalities of Unconsciousness: Sleep-like EEG dynamics under anaesthesia**

*Rachel Ward-Flanagan (Neuroscience and Mental Health Institute, University of Alberta), Alto Lo (Department of Psychology, University of Alberta), Marissa Sobey (Department of Psychology, University of Alberta), Clayton T. Dickson (Neuroscience and Mental Health Institute, Department of Physiology, Department of Psychology, University of Alberta)*

**P60 Black-capped chickadee (*Poecile atricapillus*) response to altered syntax fee-bee song.**

*W. D. Serviceac, C. Montenegroac, K. A. Campbellac, S. Mishlerac, E. N. Scullyac, J. V. Congdonac, & C. B. Sturdyabc (Department of Psychologya, Neuroscience and Mental Health Instituteb, University of Albertac)*

**P61 Matrix model for associative memory using spiking model of neurons**

*Kaiyuan Xu (Department of Computing Science, University of Alberta), Kelvin E. Jones (Faculty of Kinesiology, Sport and Recreation, University of Alberta; Neuroscience and Mental Health Institute, University of Alberta), Jeremy B. Caplan (Department of Psychology, University of Alberta; Neuroscience and Mental Health Institute, University of Alberta)*

**P62 Age differences in *Amatitlania nigrofasciata* telomere dynamics**

*K. L. Fjellner (Psychology Department, University of Alberta), S.C.P. Renn (Department of Biology, Reed College), P. L. Hurd (Psychology Department, University of Alberta)*

**P63 Heritage language anxiety as a moderator for situational ethnic identity**

*Ferdose Mohamed & Kimberly A. Noels*

**P64 Cytoarchitectural organization of the telencephalon and diencephalon of *Amatitlania nigrofasciata***

*B. Hope (Neuroscience and Mental Health Institute), K. Wonsiak (Psychology Department), & P. Hurd (Psychology Department, University of Alberta)*

**P65 Effects of recipient cognitive status on perceptions of mistreatment while in care.**

*Rachel Elyse Runac & Sheree T. Kwong See (Psychology Department, University of Alberta) & Alexander Choy (University of Calgary)*

**P66 Teacher's feedback influences students' mindsets and motivation**

*Camilla Osman, Nigel Mantou Lou, Kimberly A. Noels*

**P67 Exploration of the associative recognition task in a Bayesian model**

*Sophie Taylor (Department of Physics, University of Alberta), Sucheta Chakravarty (Department of Psychology, University of Alberta) and Jeremy Caplan (Department of Psychology, University of Alberta)*

# INVITED SYMPOSIUM

12:45 - 1:45 PM | Room: ECHA 2-140

## ***Social Identity and Existential Threats***

Co-Chairs: **Kenda Burke** and **Brittany Hope**

Speakers: **Christine Kershaw**, **Michael Sharp**, and **Andy Scott**

**Speaker 1** **When to not blur the lines within a group: The interaction of leader rhetoric and threat**  
*Christine Kershaw (Psychology Department, University of Alberta)*

**Speaker 2** **Passing Death's (p-)Curve: A p-Curve Analysis of the DTA Hypothesis**  
*Michael Sharp, Jeff Schimel, & Jamin Blatter (Psychology Department, University of Alberta)*

**Speaker 3** **The immortality hypothesis: on the human obsession with conquering death**  
*A. Scott, J. Schimel, M. Sharp, J. Blatter (Psychology Department, University of Alberta)*

# ROYCE SCIENTIFIC CAFÉ

2:00 - 3:00 PM

**RC1 Real brains in virtual environments: An investigation of attention in depth using a novel depth P3 task**

Room: ECHA 1-131

*Eden X. Redman (a), Jonathan W. P. Kuziek (a), Abdel R. Tayema (a), Jeff Murray (c), Jenna Reinen (c), Aldis Sipolins (c), Kyle E. Mathewson (a),(b)*

*(a) Department of Psychology, Faculty of Science, University of Alberta*

*(b) Neuroscience and Mental Health Institute, Faculty of Medicine and Dentistry, University of Alberta*

*(c) IBM Research: Education & Cognitive Sciences*

**RC2 Latin in a contemporary setting: A thematic analysis of motivation to learn the classical language**

Room: ECHA 1-131

*J. W. Katz, K. A. Noels, & A. R. Fitzner (Psychology Department, University of Alberta)*

**RC3 Predicting Colour Memory Behaviour Based on Evoked Neural and Oscillatory Activity**

Room: ECHA 1-121

*Jonathan W. P. Kuziek (Department of Psychology, Faculty of Science, University of Alberta), Abdel R. Tayem*

*(Department of Psychology, Faculty of Science, University of Alberta), Eden X. Redman (Department of Psychology, Faculty of Science, University of Alberta), Jeff Murray (IBM Research: Education & Cognitive Sciences), Alysha Rajaram (Department of Psychology, Faculty of Science, University of Alberta), Jenna Reinen (IBM Research: Education & Cognitive Sciences), Aldis Sipolins (IBM Research: Education & Cognitive Sciences), Kyle E. Mathewson (Department of Psychology, Faculty of Science, University of Alberta & Neuroscience and Mental Health Institute, Faculty of Medicine and Dentistry, University of Alberta)*

**RC4 Similar to me, different to you: Differences in similarity perception of objects between monolingual English speakers and bilingual English-Chinese speakers**

Room: ECHA 1-121

*K. Koh & T. Masuda (Psychology Department, University of Alberta)*

**RC5 A ride in the park: Cycling in different outdoor environments affects the auditory N1**

Room: ECHA 1-125

*J. E. M. Scanlon, E. Redman, K. E. Mathewson (Psychology Department, University of Alberta)*

**RC6 Using a deep artificial neural network to classify *Veromessor pergandei* trajectories when displaced from their feeding column**

Room: ECHA 1-125

*M. E. Cselinacz, E. Schumacker Soares, M. Spetch (Psychology Department, University of Alberta), & V. Bulitko (Computing Science Department, University of Alberta)*

**RC7 Affect of Acute Exercise on Spatial Navigation**

Room: ECHA 1-144

*Danielle Olafson, Ford Burles, Dr. Giuseppe Iaria, Dr. Kyle Mathewson, Dr. Claire Scavuzzo*

**RC8 The effect of different stressors on the behaviour of both wild-reared and captive-reared convict cichlids (*Amatitlania nigrofasciata*)**

Room: ECHA 1-144

*Emily Frey, Michele Moscicki (Psychology department, University of Alberta), Pete Hurd (psychology department, University of Alberta)*

# ORAL PRESENTATIONS: SESSION 2

**3:15 - 4:00 PM | Room: ECHA 2-140**

**T5 Feedback Error-related Negativity as a Control Signal for the Attention System**

*D. Robles & Kyle E. Mathewson (Psychology Department, University of Alberta)*

**T6 A Workout for your brain - Neurofeedback training to develop the capability to modulate one's own brain activity**

*McKenzie A.C. (Department of Psychology, University of Alberta),*



Sheldon S.S. (Department of Psychology, University of Alberta),  
& Mathewson, K.E. (Department of Psychology, University of Alberta; Neuroscience and Mental Health Institute,  
Faculty of Medicine and Dentistry, University of Alberta)

**T7 Metabolic modulation of brain states and memory**

C.J. Scavuzzo (Psychology Department, University of Alberta), I.H. Rakotovao (Psychology Department, University of Alberta), A. Shienh (Psychology Department, University of Alberta), C.T. Dickson (Psychology Department, Neuroscience and Mental Health Institute, University of Alberta)

# INVITED INTERNAL ADDRESS

4:00 - 5:00 PM | Room: ECHA 2-140

## ***Improving Children's Understanding of the Equal Sign: From Experimental Control to Chaos and . . . Maybe Beyond?***

**Dr. Jeff Bisanz**

University of Alberta

In psychological research we typically start with a phenomenon we do not understand and then we conduct a series of studies to help us understand that phenomenon better. In the present case the approach is somewhat different: We started with a phenomenon that was fairly well understood psychologically, and we then conducted a series of studies to explore what it takes to move from psychological understanding to having an impact outside our laboratory on, in this case, children's learning. The vast majority of children in elementary school solve equivalence problems, such as " $2 + 4 + 6 = 7 + \_$ ", incorrectly, despite being perfectly able to perform the necessary calculations. They fail because they interpret the equal sign in an operational manner ("put the answer next") rather than in a relational manner ("the sum of the numbers to the left of the equal sign is equal to the sum of the numbers to the right"). A team of researchers at the University of Alberta and Concordia University undertook a series of studies (a) to identify and test methods for improving children's performance, (b) to design and test instructional methods that could be used in classrooms, and (c) to implement and test those instructional methods using online professional development for teachers. At each step the instructional interventions we tested produced sizeable increases in children's performance. Lessons were learned during the process of "scaling up" from small-scale experimental and developmental investigations to effecting instructional change broadly in classroom environments.

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# ORGANIZING COMMITTEE

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Paul Croome

# VENUE

