



Simon Fraser University 2017

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# NorthWest Cognition And Memory

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NOWCAM is an annual venue for students and researchers from the Pacific Northwest working in the general area of memory and cognition to meet and share their current research with an informed, sympathetic, and good-humoured audience.

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# NOWCAM 2017 Program

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## NOWCAM MISSION STATEMENT

The Pacific Northwest is home to numerous wide-flung Psychology departments with strengths in cognition and memory. NOWCAM provides a forum for faculty and students from these departments to get together and discuss their latest research. Interactions with other researchers can spark innovations and cross-fertilizations that move the research forward in new and exciting ways. In any case, it's good fun to get together with friends and colleagues who share similar interests, chew the cognitive rag a bit, and quaff a beer or two over a good meal.

The aim of NOWCAM is to support Pacific Northwest faculty and student researchers working in the general area of memory and cognition by creating an annual venue in which they can share their current research activities with an informed, sympathetic, and good-humoured audience. With the exception of keynote addresses, NOWCAM favours papers and posters presented by students (usually with faculty as co-authors). This gives students an opportunity to develop their chops, and faculty a chance to sit back and relax.

## INTERNET ACCESS

Visiting members of eduroam supported institutions may securely connect to the EDUROAM wireless network without needing a guest account. Authentication and support of eduroam for visitors is provided by your home institution. Note: The best way to prepare to use EDUROAM for wireless access on a device at another institution is to ensure it works properly at your home institution before travelling. Further information about eduroam can be found <http://eduroam.ca>, or <http://eduroam.org> for visitors from outside Canada.

If your institution does not belong to eduroam or your wireless device has not been configured to use eduroam, instructions to connect as an SFU guest will be provided when you register.

**TRANSIT INFORMATION**

If you are staying off campus you may take any of the following buses to SFU: **95, 143, 144, 145**. The nearest SkyTrain station to SFU Burnaby is Production Way, on the Millennium SkyTrain Line. From the Production Way station, take the #145 bus that goes daily to and from Burnaby campus. Google Maps will also give you routes and schedules if you search for a route between two locations and select the bus/transit option.

**PARKING INFORMATION**

Ordinarily, the cost of parking on campus is \$13.00/day. We have a special NOWCAM rate of \$6.50/day for those who requested passes on the NOWCAM 2017 conference registration page. Parking passes will be available at the registration desk on Friday morning. Please bring exact change if possible (\$6.50 for one day and \$13.00 for two days). When you pick up your passes, you will return to your vehicle to place the passes on the windshield.

UBC and UVic Attendees: Please note that due to a reciprocity agreement all UBC and UVic staff and faculty members are able to park free of charge in the visitor's parking lots/parkades provided they display their valid parking permit.

**GALA INFORMATION**

On Friday, May 12th a gala dinner will be held at the Diamond Alumni Centre (DAC) at 7:00pm. The DAC is located on top of Burnaby Mountain across the street from the Robert C. Brown building and offers spectacular mountain scenery, helpful service, and fine cuisine. All are welcome to go to the DAC immediately after the keynote address.

**ACKNOWLEDGEMENTS**

The SFU NOWCAM 2017 Organizing Committee would like to thank the Faculty of Arts and Social Sciences, the Department of Psychology, and the Cognitive Science program for their financial support. We are grateful to graduate students whose support was invaluable: Trishia Coburn, Megan Giroux, Camille Weinsheimer, Dayna Woiwod, Bert Sager, and Elisabeth Kreykenbohm. We thank the undergraduate student volunteers: Minyoung Cho, Taylor Cork, Lindsay Deane, Vicky Hong, Kara Kristoffersson, Brooke MacDonald, and Kristina Popova. Thanks to Randy Helelfinger for doing the photography and Richard Blackwell for videotaping the keynote. Finally, we would like to thank Steve Lindsay for his speedy responses and the comprehensive and organized planning materials.

**THURSDAY, MAY 11<sup>TH</sup>, 2017**

**8:00 pm – late Social Event – No Host Reception at Club Ilia (8902 University High St, Burnaby)**

**FRIDAY, MAY 12<sup>TH</sup>, 2017**

**8:00 am Registration (Coffee & Tea Provided) – Saywell Hall (SWH) Atrium**

**8:45 am Opening Remarks – SWH 10081**

**9:00 – 10:15 Paper Session I: Memory**

- 9:00 Exploring Memory States for General Knowledge: A Non-Trivial Pursuit  
*Rosemary S. Pereverseff, Shaela T. Jalava, Taylor D. Blanchette, & Glen E. Bodner*
- 9:15 Does a Disfluent Font Improve Memory?  
*Devon Currie, Taylor D. Blanchette, Shaela T. Jalava, & Glen E. Bodner*
- 9:30 Cheating & Self-Deception  
*Eric Y. Mah, Monika Undorf, Dawn-Leah L. McDonald, Andrew Heubert, & Daniel M. Bernstein*
- 9:45 Attentional Blink While Driving: A Simulator Study  
*Bertrand Sager, Elisabeth Kreykenbohm, Taylor Cork, Carley Wood, Aaron Richardson, & Thomas Spalek*
- 10:00 Only Half of What I'll Tell You is True: Common Experimental Procedures Reduce the Impact of Repetition on Truth Judgments  
*Madeline Jalbert, Eryn Newman, & Norbert Schwarz*

**10:15 – 10:25 Break**

**10:25 – 11:35 Speed Talks 1: Memory & Learning**

- 10:25 Test Item Order Difficulty Doesn't Affect Students' Retrospective Evaluations of Performance  
*Dawn-Leah L. McDonald, Daniel M. Bernstein, & Rajiv Jhangiani*
- 10:35 Does Familiarity Breed Attraction or Revulsion?  
*Natasha Pestonji, Monica Ibrahim, George Molina, & Peter Graf*
- 10:45 Reducing Social Stigma Related to Substance Misuse: A Comparison of Biological and Socio-ethical Models  
*Daniel Jordan*
- 10:55 Overclaiming and Memory Bias: An Overlap?  
*Patrick Dubois*
- 11:05 Sensitivity of the ACC to Prediction Errors at Multiple Levels of Learning  
*Kurt Shulver, Clay B. Holroyd, & Danesh Shahnazian*
- 11:15 Response Bias in Recognition Memory for Images  
*Kaitlyn Fallow, Sastun Phillips, & D. Stephen Lindsay*
- 11:25 The Effect of Experience-Induced Prototypes on Spatial Memory for Everyday Objects  
*Michael Williams & Cristina Sampaio*

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**11:35 – 1:00      Lunch (Not Provided)**

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**1:00 – 2:15      Paper Session II: Learning**

- 1:00      TWISTED Student Learning Paths  
*Maryam Osman & Peter Graf*
- 1:15      Rapid Language Acquisition in a Reinforcement Learning Paradigm  
*Chad C. Williams, Talise Lindenbach, Bruce Wright, & Olave E. Krigolson*
- 1:30      Neural Correlates of Model-Based Transition Learning  
*Danesh Shahnazian & Clay B. Holroyd*
- 1:45      Learning without Feedback: Neural activity of the P300  
*Robert Trska, Stephen Luehr, & Olave E. Krigolson*
- 2:00      Context, Control, and the Anterior Cingulate Cortex  
*Cameron D. Hassall, Olave E. Krigolson, & Clay B. Holroyd*
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**2:15 – 3:30      Poster Session 1 (Refreshments Provided)**

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**3:30 – 4:45      Paper Session III: Cognitive Development & Applied Research**

- 3:30      Individual Differences in the Other Race Effect  
*Mario J. Baldassari, Shalina Kara, & D. Stephen Lindsay*
- 3:45      Attentional Selection in Low and High ADHD Symptom Groups  
*Alannah Wallace, Grace Iarocci, & John J. McDonald*
- 4:00      Avoidance-Based Scenarios Inflate Theory-of-Mind Errors in the Sandbox  
*Daniel G. Derksen, Patricia I. Coburn, Andre Aßfalg, & Daniel M. Bernstein*
- 4:15      Social Cognition in Fetal Alcohol Spectrum Disorders (FASD)  
*Michelle C. Hunsche, Megan E. Giroux, Brian Katz, Karen Janzen, & Daniel M. Bernstein*
- 4:30      The Effect of Language on Judgements of Individual Persistence in Fairy Tales  
*Kyle Dadgar, Kristan Marchak, & Geoff Hall*
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**4:45 – 5:00      Break**

**5:00 – 6:00      Keynote Speaker: Dr. Daniel M. Bernstein**

**6:00 – 10:00      Gala Dinner: Diamond Alumni Centre**

SATURDAY, MAY 13<sup>TH</sup>, 2017

8:30 am Coffee and Tea

9:00 – 10:15 Paper Session IV: Perception

- 9:00 The Origin of Motor Priming Effects Induced by Manipulable Objects  
*Corson N. Areshenkoff, Daniel N. Bub, & Michael E.J. Masson*
- 9:15 Face Clouds: Modelling Within-Person Face Variability  
*Alison Campbell & James Tanaka*
- 9:30 Investigating Neural Sensitivity to Face Identity in Adults with Autism Using EEG  
*Patrick Dwyer, Buyun Xu, & James Tanaka*
- 9:45 Compatibility Effects Evoked by Pictures of Graspable Objects  
*Maria H.J. van Noordenne, Daniel N. Bub, & Michael E.J. Masson*
- 10:00 Perceptual Expertise in Classifying Mammograms and Faces  
*Michael Chin & James Tanaka*

10:15 – 10:25 Break

10:25 – 11:45 Speed Talks 2: Perception & Attention

- 10:25 Reading Ability of Children Treated for Amblyopia  
*Laveniya Kugathasan, Marita Partanen, Violet Chu, Christopher Lyons, & Deborah Giaschi*
- 10:35 Inspired by Mary Jane: An Examination of the Relationship Between Cannabis Use and Creativity  
*Emily LaFrance & Carrie Cuttler*
- 10:45 What's the Relationship Between Affect and the Scope of Attention: A New Answer to an Old Question?  
*Anna Maslany, Nikita Morar, & Peter Graf*
- 10:55 Do the Eyes Have It? Evidence Against Social Gaze Cueing  
*Daniil Vasilyev, George Kachkovski, M. Kuk, T. Welsh, & Alan Kingstone*
- 11:05 Neural Dynamics of Spontaneous Thought: An EEG Study  
*Manesh Girn, Eric Laycock, Melissa Ellamil, Lawrence Ward, & Kalina Christoff*
- 11:15 The Brain on Tylenol: Acetaminophen Amplifies Disengagement from External Stimuli During Internally Directed Thought  
*Sumeet Mutti, Jennifer Yip, Daniel Randles, Diana Pricop, Julia W. Y. Kam, Steven J. Heine, & Todd C. Handy*
- 11:25 Crime Blindness: The Impact of Inattentive Blindness on Eyewitness Memory and Identification  
*Alia Wulff, Megan Connell, Dayna Guzman, Madison Johnson, Amanda Kemp, Rochelle A. Robinson, Claire Tyler, Hanna Webster, & Ira E. Hyman*
- 11:35 Mind-Wandering in Leisure  
*Giping Edouard Tomczyk, Trish Varao-Sousa, & Alan Kingstone*

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**11:45 – 1:00      Poster Session 2 (Lunch Provided)**

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**1:00 – 2:15      Paper Session V: Attention**

- 1:00      Abrupt-Onset Attention Capture Within the Attentional Window  
*Daniel Tay & John J. McDonald*
- 1:15      Selection of Multiple Objects Impairs Subsequent Visual Search During the Attentional Blink  
*Kristen Thompson & John J. McDonald*
- 1:30      Here's Looking at You Kid: Preferential Attention to Same and Other Race Infant Faces Does Not Overcome the Other Race Effect  
*Sarah Martinez*
- 1:45      Situational Boredom as Meta-Awareness of the Dullness of a Task  
*Quentin Raffaelli, Caitlin Mills, & Kalina Christoff*
- 2:00      Mind-Wandering and Psychopathology: A Review  
*Jennifer M. Yip & Todd C. Handy*
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**2:15 – 2:30      Closing Remarks**

<b>POSTER SESSION 1 (FRIDAY, 2:15 – 3:30)</b>
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- 1 Perceptual costs of reacting to new visual environments in a dynamic, real-world task  
*Neda Anvari, Ruilin Zhang, Rajan Hayre, Alex Volkanov, Rollin Poe, YuYing Mak, & Mark Blair*
- 2 The impact of skill on fixation durations in a high-speed game  
*Judi Azmand, Scott Harrison, Lief Swanson, Sebastian Meijerhof, Katerina Dolguikh, & Mark Blair*
- 3 Efficient information access in a dynamic visual environment  
*Yue Chen, Robin Barrett, Romanos Byliris, Tyrus Tracey, Kayla Fischler, Caitlyn McColeman, & Mark Blair*
- 4 Influence of Mood State on Evaluation of Neutral Words  
*Brendan Torok, Regard M. Booy, & Mario Liotti*
- 5 Investigating the effect of an observer on attention in a visual search task  
*Alissa Burrows, Jill A. Dosso, & Alan Kingstone*
- 6 Accuracy and Response Time Measures Reveal Multiple Bottlenecks in the Attentional Blink  
*Hayley E. P. Lagroix, Vincent Di Lollo, & Thomas M. Spalek*
- 7 A New ERP Component Indexing the Reactivation of the Location of a Previous Target  
*Hayley E. P. Lagroix, Taylor Cork, Nadja Jankovic, Elijah Mudryk, Aaron Richardson, Kristen Thompson, Vincent Di Lollo, & Thomas M. Spalek*
- 8 Inhibition of Return in Scotopic Vision  
*Elisabeth Kreykenbohm, Thomas M. Spalek, & Vincent Di Lollo*
- 9 Narrative: Source of Visual Misdirection?  
*Daniil Vasilyev, Alan Kingstone, & Tom Scholte*
- 10 Validating Vignettes in Sunk-Cost Research  
*Corey Shane Callies & Shih-Chieh Chen*
- 11 Sunk-cost travel dilemma  
*Zach Hamzagic, Angela Geisbrecht, & David Murray*
- 12 In for a penny, in for a pound: The Sunk-Cost Fallacy from 3 to 90 years of age  
*Madeline M. Sawatzky, Eric Y. Mah, Daniel G. Derksen, & Daniel M. Bernstein*
- 13 The effect of stimulus area on global motion thresholds in children and adults  
*Farnaz Javadian, Kevin Chang, Kimberly Meier, & Deborah Giaschi*
- 14 Executive function and gait dynamics in young adult populations  
*Simon Ho & Todd C. Handy*
- 15 Theory of Mind Psychometrics  
*Angela Giesbrecht, Andrew Huebert, Andre Aßfalg, & Daniel Bernstein*
- 16 The Effect of Cross-Examination on Reports Provided by Children Who Have Experienced a Single or Repeated-Event  
*Kara J. Kristoffersson, Patricia I. Coburn, Dayna M. Woiwod, Deborah A. Connolly, Daniel M. Bernstein, & A. George Alder*
- 17 A phenomenological perspective on the development of reflection  
*Emanuela Yeung & Ulrich Müller*
- 18 Tell Me a Story: Narrative Ability and Executive Function in Preschoolers  
*Carolyn Helps, Ulrich Mueller, & Abbi Graves*
- 19 Can Brain Activation Differences Improve Classification of those with Mild Cognitive Impairment  
*Suzanne Starkiewicz, Drew Halliday, & Stuart MacDonald*

- 20 Improving the Practicality of the Method of Loci (MoL)  
*Kylie M. Ransome & Michael S. Pollock*
- 21 The Effect of Mental Context Reinstatement on Children's Memory for a Repeated or Single Event  
*Lindsay A. Deane, Dylan P. Q. Patterson, Dayna M. Woiwod, Patricia I. Coburn, & Deborah A. Connolly.*
- 22 Memories for Smilies & Frownies: Sex Differences in Memory  
*Nada Alaifan & Peter Graf*
- 23 Stealing Memories: The Egocentric Source Monitoring Bias Following Collaborative Remembering  
*Jared Frank, Jack Hallmark, Davis Harford, Madison Johnson, Kyle Manske, Heather Tower, Hanna Webster, Alia Wulff, Madeline C. Jalbert, & Ira E. Hyman*
- 24 Memory Performance in Rodent Model of Shift Work Meal Time  
*Sylvie Couture-Nowak, Brianne A. Kent, Christian Petersen, & Ralph Mistlberger*
- 25 A Generalized Linear Mixed Model of Signal Detection Theory  
*Maximilian M. Rabe, Reinhold Kliegl, & D. Stephen Lindsay*

<b>POSTER SESSION 2 (SATURDAY, 11:45 – 1:00)</b>
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- 1 System I and System II Decision Making in a Medical Context  
*Marie Schulze, Chad C. Williams, Bruce Wright, & Olave E. Krigolson*
- 2 Playing God: Linking Politics and Religiosity to Attitudes towards Physician-Assisted Suicide  
*Mohit Bassi & Andrea Hughes*
- 3 Babies on the Brain: The Neural Correlates of the Own Race Bias and Kindchenschema  
*Sarah Martinez, Mickey Leytze, Kathleen Lucier, Andrew Jay, Bette Brownstein, Kelly Oberbillig, McNeel Jantzen, & Kelly Jantzen*
- 4 Stretch Your Mind: The Effects of Yoga, Aerobic, and Resistance Exercise on Executive Functioning  
*Aria Petrucci, Emily LaFrance, Christopher Connolly, & Carrie Cuttler*
- 5 Using the Posner Cueing Task to Elicit the Effect of Age on Spatial Attention  
*Emma Rigsby, Olav E. Krigolson, & Francisco L. Colino*
- 6 Response latency of many sequential lineup IDs  
*Ryann Tansey, Mario Baldassari, Nicole Laird, Aidan Crossley, & D. Stephen Lindsay*
- 7 An Investigation into the Role of Athleticism on the Long-Term Deficits in Set Shifting Following Concussive Impacts  
*Philip Chkipov, Iris Gordon, & Mauricio Garcia-Barrera*
- 8 A University Education: A Cure for Ageism?  
*Ivy Myge, Lesley Jessiman, Besart Hysniu, Evan Sidhu, Veronica Draayers, David Croteau Jr., & Larissa Kowalski*
- 9 “I felt it all along”: Hindsight bias for emotion  
*Michelle C. Hunsche, Jordan Procyk, Ragav Kumar, & Daniel M. Bernstein*
- 10 The Relationship Between Mental Representations of Hand Actions and the Classification of Directional Symbols  
*Tara E. Kuhn, Michael E. J. Masson, & Daniel N. Bub*
- 11 Switch Cost: the effect of an internally prepared action on a exogenously cued action  
*Katie E. Lawless, Daniel N. Bub, & Michael E.J. Masson*
- 12 Change Detection Within Line Drawings: Details Affect Search Performance  
*Jennifer A. Hoffmeister, Qiwan Shi, Laurissa Wilson, & Richard D. Wright*
- 13 Change Detection Within Mandarin Characters: Readability Matters  
*Qiwan Shi, Miao Tang, Ariel Cheung, & Richard D. Wright*
- 14 Change Detection and Pattern Complexity  
*Laurissa Wilson, Qiwan Shi, Lisa Haroldson, Chorok Gene, & Richard D. Wright*
- 15 Change Detection and Featural Complexity  
*Donna Gamboa, Qiwan Shi, Wendi Li, & Richard D. Wright*
- 16 Spatial or Motor Representations? What reducing the distance between responses can tell us about handled alignment effects  
*Connor MacRae, Daniel N. Bub, Michael E. J. Masson, Maria H. J. van Noordenne, & Gabriella Marshall*
- 17 Training perceptual object expertise with artificial object creatures  
*Akshay Bhasin, Jocelyn Chalmers, Simen Hagen, & Jim Tanaka*
- 18 Reaching towards others: is it special?  
*Jane J. Kim, Jill A. Dosso, & Alan Kingstone*
- 19 Unfamiliar face perception: using sorting tasks to infer face identity categories  
*Jessica Samuel, Veronica Plihal, James Tanaka, & Alison Campbell*

- 20 The Combination Mechanism Causing Category Distortions in a 3D Virtual Environment  
*Michael Williams, Chase Walsh, Alex Engelbertson, Sabrina Menezes, & Cristina Sampaio*
- 21 Dispositional influences on priming for emotional words  
*Susanna Piasecki, Regard M. Booy, & Mario Liotti*
- 22 Language-Induced Stimulus-Response Compatibility: Simulations or Stereotypes?  
*Morgan Teskey, Daniel N. Bub, & Michael E. J. Masson*
- 23 Reward positivity amplitude to feedback stimuli that predict monetary rewards and electric shocks in goal-directed task paradims  
*Sepideh Heydari & Clay B. Holroyd*
- 24 Getting From A to G: Neural Responses During a Goal-Directed Process  
*T. Bryn Grey, Cameron D. Hassall, & Olave E. Krigolson*
- 25 Using Fast Periodic Visual Stimulation to Measure Perceptual Expertise with Artificial Objects  
*Taryn Berman, Rebecca Louw, Evelina Michniak, Simen Hagen, & James Tanaka*
- 26 Implicit Learning Mechanisms: Implicating the P300 Component  
*Stephen J.C. Luehr, Francisco L. Colino, & Olav E. Krigolson*
- 27 The role of self-efficacy in distinguishing important information  
*Faith Jabs, Trish Varao-Sousa, Jonathon Fawcett, & Alan Kingstone*

## ABSTRACTS

FRIDAY, MAY 12<sup>TH</sup>, 2017**Paper Session I: Memory (9:00 – 10:15)****Exploring Memory States for General Knowledge: A Non-Trivial Pursuit**

*Rosemary S. Pereverseff, Shaela T. Jalava, Taylor D. Blanchette, & Glen E. Bodner*  
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We report the first exploration of memory states for answers to general-knowledge questions. Contrary to the assumption that general-knowledge questions largely tap semantic memory, our participants often indicated that recollection of episodic details accompanied their answers. We also found that the accuracy of these recollection states, and for a “just know” state, were much higher than for familiarity and guess states, suggesting that knowing and familiarity are distinguishable memory states.

**Does a disfluent font improve memory?**

*Devon Currie, Taylor D. Blanchette, Shaela T. Jalava, & Glen E. Bodner*  
 devon.currie@ucalgary.ca

Presenting disfluent items at study can enhance memory, possibly because disfluent stimuli are difficult to process, or are distinctive. We compared memory for words presented in either a disfluent (Haettenschweiler) or a fluent (Arial) font. Contrary to both accounts, no memory benefit appeared for disfluent items despite slower reading times for disfluent items. However, a memory benefit occurred using a blur manipulation, suggesting only some forms of disfluency benefit memory.

**Cheating & Self-Deception**

*Eric Y. Mah, Monika Undorf, Dawn-Leah L. McDonald, Andrew Heubert, & Daniel M. Bernstein*  
 eric.mah@kpu.ca

When given the opportunity to cheat on a task, people cheat and overestimate performance on subsequent tasks where cheating is impossible. After cheating, people deceive themselves and attribute prior good performance to personal ability rather than cheating. In two experiments, we elicited cheating but found mixed evidence of subsequent self-deception and overestimation of performance. Thus, cheating-related self-deception occurs but may be influenced by task context and sample characteristics.

**Attentional Blink While Driving: A Simulator Study**

*Bertrand Sager, Elisabeth Kreykenbohm, Taylor Cork, Carley Wood, Aaron Richardson, & Thomas Spalek*  
 bsager@sfu.ca

The Attentional Blink (AB) manifests as a deficit in attending the second of two targets when they are presented in close temporal proximity. Although it has been suggested that the AB has no real-world applicability, we have found that participants, driving in a simulator, were slower to respond to a braking event when it was preceded at short, relative to long, lags by a car signalling in an adjoining lane.

**Only half of what I'll tell you is true: Common experimental procedures reduce the impact of repetition on truth judgments**

*Madeline Jalbert, Eryn Newman, & Norbert Schwarz*  
mcjalber@usc.edu

False information in the real world rarely comes with a warning label, but false information in truth effect experiments does. Commonly used experimental procedures draw attention to the truth value of claims at encoding, which alerts participants to potential falsehoods and limits the impact of repetition. Three experiments show that the size of the truth effect increases by a factor of 4 to 12 times when such warnings are avoided.

<p><b>Speed Talks 1: Memory &amp; Learning (10:25 – 11:35)</b></p>
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**Does Familiarity Breed Attraction or Revulsion?**

*Natasha Pestonji, Monica Ibrahim, George Molina, & Peter Graf*  
natasha.pestonji@psych.ubc.ca

The mere exposure effect suggests that being repeatedly exposed to a stimulus is sufficient to make us like it. In a 1989 meta-analysis, Bornstein showed that the effect is larger with relatively brief pre-exposures and has been largely investigated with neutral stimuli, but not negative. Our participants rated attractiveness/repulsiveness of neutral/negative images that were pre-exposed subliminally or supraliminally. Supraliminal pre-exposures had no influence on participants' ratings, but subliminal pre-exposures made neutral pictures more attractive and negative pictures more repulsive.

**Test Item Order Difficulty Doesn't affect Students' Retrospective Evaluations of Performance**

*Dawn-Leah L. McDonald, Daniel M. Bernstein, & Rajiv Jhangiani*  
dawnleah.mcdonald@gmail.com

We investigated whether order difficulty of test questions (easy-hard, hard-easy, random) would affect students' retrospective evaluations of their performance. Introductory psychology students completed three chapter quizzes and a midterm on course content. Consistent with prior work, test item order difficulty did not affect student performance. Contrary to prior work, test item order difficulty also did not affect students' retrospective evaluations of their performance.

**Reducing Social Stigma Related to Substance Misuse: A Comparison of Biological and Socio-ethical Models**

*Daniel Jordan*  
daniel.jordan@email.kpu.ca

Purpose - This study assessed the relative effectiveness of the biological informational model and socio-ethical informational model in reducing negative attitudes towards substance misuse. Methods - Two separate randomized controlled trials administered pre- and post-test questionnaires that measured 9 stereotype factors. One trial included students from the Kwantlen Research Pool (SONA) (N=160) and a second trial included workers from Mechanical Turk (MTurk) (N=200).

**Overclaiming and Memory Bias: An Overlap?**

*Patrick Dubois*  
patrick.dubois@psych.ubc.ca

The Overclaiming Technique measures self-enhancement by comparing knowledge claims of real and fake items. This has traditionally been used to index self-enhancement, yet unrelated metamemory factors have yet to be adequately studied. I will present evidence that both self-enhancement and

memory bias play a role, and that claiming knowledge of non-existent words predicts lower science grades, independent of vocabulary knowledge and some metacognitive factors. There remains a lot left to be explained about why people claim to know what they don't.

### **Sensitivity of the ACC to Prediction Errors at Multiple Levels of Learning**

*Kurt Shulver, Clay B. Holroyd, & Danesh Shahnazian*

kurtshulver@gmail.com

Phasic changes in the release of dopamine codes for a reward prediction error (RPE), a signal indicating whether environmental events are better or worse than expected. Furthermore, complex real-life tasks that display a hierarchical structure have been evidenced to produce multiple prediction errors. One theory suggests the reward positivity, an ERP component, is reflective of these RPE signals. In the current study, we provide evidence that supports this theory.

### **Response bias in recognition memory for images**

*Kaitlyn Fallow, Sastun Phillips, & D. Stephen Lindsay*

kmfallow@uvic.ca

Our lab has previously reported a remarkably robust conservative response bias in recognition memory experiments using images of lesser-known masterwork paintings as stimuli. This paper will describe the results of several more recent experiments that have used other types of complex, unfamiliar images (e.g., photos of faces and assorted scenes) in an attempt to better understand the stimulus features that might be driving this response bias phenomenon.

### **The Effect of Experience-Induced Prototypes on Spatial Memory for Everyday Objects**

*Michael Williams & Cristina Sampaio*

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Location memory is viewed as a compromise between an object's metric location and its spatial region. Typically, targets in this literature are minuscule dots voided of any meaning and categories are symmetric quadrants within geometric spaces. Real life objects, however, are associated with experience-based prototypical locations. We showed that when targets are real life objects, experienced-based prototypes have a stronger effect on memory than geometric prototypes.

## **Paper Session II: Learning (1:00 – 2:15)**

### **TWISTED Student Learning Paths**

*Maryam Osman & Peter Graf*

maryamosman415@gmail.com

Why do some students thrive in their transition to university while others do not? I interviewed first year students to find out. Students participated in two one-on-one semi-structured interviews at the start and end of their first semester. Information was collected on background, ambitions and expectations, habits, time management, and how their term at university went. The interviews were then analyzed for common themes, and for different learning paths experienced.

### **Rapid Language Acquisition in a Reinforcement Learning Paradigm**

*Chad C. Williams, Talise Lindenbach, Bruce Wright, & Olave E. Krigolson*

ccwillia@uvic.ca

Learning a new language is a time consuming and effortful process that elicits many benefits. In the current study, we had undergraduate students learn a novel language in a reinforcement learning paradigm while electroencephalographic data was being recorded. We found that participants were

able to learn sixty new words in less than an hour and comprehend this information in conceptual sentences. These findings were confirmed by neural signals.

### **Neural correlates of model-based transition learning**

*Danesh Shahnazian & Clay Holroyd*

dshahnaz@uvic.ca

Behavioral studies indicate that humans can learn the consequences of their actions by constructing an internal model of the environment. However the neural mechanisms underlying this process is still not well understood. To investigate which brain regions are involved in model learning we conducted an Electroencephalogram (EEG) study in which participants select among 3 spaceships and observe which of the 2 planets they travel to.

### **Learning without Feedback: Neural activity of the P300**

*Robert Trska, Stephen Luehr, & Olave E. Krigolson*

Rob.Trska@Gmail.com

Reward-expectation processes are mediated through frontal medial cortical structures. However, when expectations are unavailable such as when feedback is unavailable, neural correlates become unclear. Here we examine the P300 component via electroencephalography in a classic odd-ball paradigm. We compared two known and unknown experimental conditions, finding the amplitudes of P300 activity on a trial-by-trial basis was modulated through participant expectations. This suggests an involvement in the parietal cortex with learning.

### **Context, Control, and the Anterior Cingulate Cortex**

*Cameron D. Hassall, Olave E. Krigolson, & Clay B. Holroyd*

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The exact role of the anterior cingulate cortex (ACC) remains a mystery. We present electroencephalographic and modelling data suggesting that although the ACC may be sensitive to trial-to-trial events (such as feedback), its primary role has more to do with the motivation of extended behaviours. Specifically, we show that the ACC adjusts cognitive control by evaluating rewarding stimuli in the context of the average task value.

## **Poster Session 1 (2:15 – 3:30)**

### **1 Perceptual costs of reacting to new visual environments in a dynamic, real-world task**

*Neda Anvari, Ruilin Zhang, Rajan Hayre, Alex Volkanov, Rollin Poe, YuYing Mak, & Mark Blair*

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The looking-doing latency examines the time to the first action after a shift of attention. In the present work we consider whether subtracting subsequent action times from first-action latencies can offer insight into the perceptual cost of orienting to a new visual environment. We compare changes in looking-doing latency and new view cost with skill in the digital records of the video game StarCraft 2.

### **2 The impact of skill on fixation durations in a high-speed game**

*Judi Azmand, Scott Harrison, Lief Swanson, Sebastian Meijerhof, Katerina Dolguikh, & Mark Blair*

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In StarCraft 2, the movements of the user's screen are analogous to eye movements. We measure the allocation of visual attention during StarCraft 2 play and find this analogy to be stronger than originally anticipated. Gaze and screen fixations exhibit similar properties such as

decreasing durations as skill improves. We suggest that the analogy holds because both measures reflect how visual attention changes with skill.

**3 Efficient information access in a dynamic visual environment**

*Yue Chen, Robin Barrett, Romanos Byliris, Tyrus Tracey, Kayla Fischler, Caitlyn McColeman, & Mark Blair*

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Gathering relevant information is necessary for informed decision making. In visually guided tasks, people gather information from subtle cues to inform their decisions. Researchers interested in how these information access processes inform decision-making by measuring attentional allocation with eye-tracking. By using data from over 3,000 Starcraft 2 replay files researchers seeks to generalize some findings pertaining to efficiency in basic visual cognition to a more complex and dynamic task.

**4 Influence of Mood State on Evaluation of Neutral Words**

*Brendan Torok, Regard M. Booy, & Mario Liotti*

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Emotional stimuli are given attentional priority; however, neutral stimuli can be interpreted as negative or positive in certain contexts. We examined the effects of mood on the evaluation of neutral stimuli. We report facilitated evaluation of neutral stimuli in the positive, and neutral mood state, with an opposite effect in the negative mood state, suggesting neutral stimuli are not always neutral, and the neutral mood is not devoid of emotion.

**5 Investigating the effect of an observer on attention in a visual search task**

*Alissa Burrows, Jill A. Dosso, & Alan Kingstone*

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Being in a social environment can cause attentional shifts in a line bisection task (Szapak et al., 2014). This study investigates whether the presence and location of an observer affects performance in a visual search task. Participants were faster at searching for a target when being observed compared to when searching alone. However, the location of the observer did not appear to cause changes in attention within the screen.

**6 Accuracy and Response Time Measures Reveal Multiple Bottlenecks in the Attentional Blink**

*Hayley E. P. Lagroix, Vincent Di Lollo, & Thomas M. Spalek*

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Perception of the second of two sequential targets (T1, T2) is impaired when presented soon after the first (attentional blink; AB). A series of experiments in which masking, salience, and stimulus-response compatibility were manipulated reveal that accuracy and RT are not always equivalent measures, and suggest that, contrary to extant theories, the AB may arise from postponements of T2 processing at more than one level within the system.

**7 A New ERP Component Indexing the Reactivation of the Location of a Previous Target**

*Hayley E. P. Lagroix, Taylor Cork, Nadja Jankovic, Elijah Mudryk, Aaron Richardson, Kristen Thompson, Vincent Di Lollo, & Thomas M. Spalek*

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When two events (S1, S2) occur in succession, processing of one can affect processing of the other. We discovered an event-related potential positivity lateralized to the location of an S1 target which is evoked by the onset of S2. We refer to this component as re-activation positivity

(PR). This component suggests that the S1 location is maintained and re-activated by subsequent events, even though it is irrelevant to the task.

**8 Inhibition of Return in Scotopic Vision**

*Elisabeth Kreykenbohm, Thomas M. Spalek, & Vincent Di Lollo*  
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Inhibition of Return (IOR) is the finding that responses are slower to targets at previously cued than at uncued locations. IOR is often explained using inhibitory mechanisms. Inhibitory mechanisms have also been posited to be involved in motion detection, which has been shown to be reduced or eliminated in scotopic (night), as opposed to photopic (day), vision. The present work investigated whether IOR was likewise reduced in scotopic vision.

**9 Narrative: Source of Visual Misdirection?**

*Daniil Vasilyev, Alan Kingstone, & Tom Scholte*  
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Viewers do not notice visual changes in videos when their attention is directed away from the change. Can film narrative alone direct attention away from said changes? Eight videos were presented to participants; four videos with visual changes during meaningful moments, and four with changes during non-meaningful moments. Participants spotted changes less during meaningful moments, implying that film narrative is sufficient in inducing change blindness in videos.

**10 Validating Vignettes in Sunk-Cost Research**

*Corey Shane Callies & Shih-Chieh Chen*  
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Prior investment in a lost cause makes people invest further in that cause – the Sunk-Cost Fallacy (SCF). We believe the ability to attribute mental states, called Theory of Mind, is confounding with SCF measures. We measured Theory of Mind, and SCF which had a real-world, and vignette condition. We compared vignettes and our real-world scenario described by our vignettes to determine Theory of Mind’s relationship with SCF measures.

**11 Sunk-cost travel dilemma**

*Zach Hamzagic, Angela Geisbrecht, & David Murray*  
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The sunk-cost effect involves continuing investments in a cause despite uncertain outcomes. This research examined how personality traits affect decisions to cancel travel plans (due to travel companion illness) in a self-versus-other sunk cost travel dilemma. Trait empathy positively correlated, while entitlement negatively correlated with cancelling plans. The pro-social decision involved cancelling plans. This study suggests empathy protects individuals from the sunk-cost effect in self-versus-other dilemmas.

**12 In for a penny, in for a pound: The Sunk-Cost Fallacy from 3 to 90 years of age**

*Madeline M. Sawatzky, Eric Y. Mah, Daniel G. Derksen, & Daniel M. Bernstein*  
madeline.sawatzky@email.kpu.ca

Past investments predict future investments regardless of the negative consequences of continued investment – the sunk-cost fallacy (SCF). We present SCF data on a lifespan sample (n = 349; Age Range = 3 - 90). Young children showed no SCF, while SCF occurred and remained relatively stable from adolescence to older adulthood. In our unique version of the sunk-cost

task, only older children and adults were susceptible to the SCF.

**13 The effect of stimulus area on global motion thresholds in children and adults**

*Farnaz Javadian, Kevin Chang, Kimberly Meier, & Deborah Giaschi*

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Global motion perception is immature in young children at slow speeds, but adult-like with fast speeds. We investigated whether this may be due to immaturity in spatial integration mechanisms. Performance was assessed in children (4-6 years) and adults using a range of speeds and a range of stimulus areas. Stimulus area had the same effect in children and adults, indicating immature performance is probably not limited by spatial integration area.

**14 Executive function and gait dynamics in young adult populations**

*Simon Ho & Todd C. Handy*

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Many studies have shown a relationship between executive function and gait in elderly populations, however, less is known about the nature of that relationship in young adult samples. University-aged participants were asked to complete the verbal trail making test while walking down a hallway. Gait dynamics were recorded using smartphone-based accelerometry. Findings suggest that gait is negatively impacted when attentional resource competition is high, even in young adult populations.

**15 Theory of Mind Psychometrics**

*Angela Giesbrecht, Andrew Huebert, Andre Aßfalg, & Daniel Bernstein*

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Theory of Mind (TOM) involves the ability to understand the thoughts and feelings of others. This research investigated whether four adult TOM tests measure the same TOM construct. Using confirmatory factor analysis, we found that each test measures its own construct rather than a common ToM ability. These results challenge the validity of ToM as a unitary construct and suggest that more attention be paid to ToM measurement.

**16 The Effect of Cross-Examination on Reports Provided by Children Who Have Experienced a Single or Repeated-Event**

*Kara J. Kristoffersson, Patricia I. Coburn, Dayna M. Woiwod, Deborah A. Connolly, Daniel M. Bernstein, & A. George Alder*

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We examined the effect of cross-examination on report consistency. Children participated in one (single-event) or five (repeated-event) magic shows prior to being interviewed. The interview began with best-practice techniques. Next, another interviewer cross-examined children or simply repeated the questions. Finally, children reported what they remembered (redirect). Single-event children were more consistent than repeated-event children, while cross-examined children were less consistent than repeated-questioned children. We discuss implications for perceived credibility.

**17 A phenomenological perspective on the development of reflection**

*Emanuela Yeung & Ulrich Müller*

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What does it mean to “reflect”? Is reflection a cognitive mechanism? Is it a disposition that can be trained? Or is it an epistemic perspective that one brings to bear in certain contexts? We

explore “reflection” as described in the philosophical literature and consider how this can inform psychological theory. Specifically, we draw on the phenomenological tradition and argue that reflection is a dynamic process of distancing, objectifying, and self-fractioning.

**18 Tell Me a Story: Narrative Ability and Executive Function in Preschoolers**

*Carolyn Helps, Ulrich Mueller, & Abbi Graves*

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The purpose of this study was to determine the relation between narrative (storytelling) ability and executive functions (EF) in preschoolers. 27 children (Mage=39.95 months) produced oral narratives using a picture book and completed a battery of EF tasks to assess working memory (WM), response inhibition, and set-shifting. Results showed that children who produced more complex narratives also demonstrated a greater capacity for response inhibition, but not for WM or set-shifting.

**19 Can Brain Activation Differences Improve Classification of those with Mild Cognitive Impairment**

*Suzanne Starkiewicz, Drew Halliday, & Stuart MacDonald*

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A putative transitional state between healthy aging and Alzheimer’s, Mild Cognitive Impairment (MCI) provides opportunities for early identification. The hemodynamic response for executive function measures was indexed using functional near-infrared spectroscopy, with derived brain activation indicators employed for classifying MCI. MCIs (n=6) recruited more prefrontal oxyhaemoglobin than controls (n=6). Activation indicators facilitated classification independent of neuropsychological indicators, suggesting that brain activation patterns provide a complementary tool for improving MCI classification.

**20 Improving the Practicality of the Method of Loci (MoL)**

*Kylie M. Ransome & Michael S. Pollock*

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While the Method of Loci (MoL) produces large enhancements in the recall of information, its practical use has so far been limited due to difficulties with applying it. We found that successful MoL performance can be predicted by performance on a divergent thinking task and that compensating for deficits in imagination by supplying participants with examples of how to visualize items in the MoL can further enhance MoL performance.

**21 The Effect of Mental Context Reinstatement on Children’s Memory for a Repeated or Single Event**

*Lindsay A. Deane, Dylan P. Q. Patterson, Dayna M. Woiwod, Patricia I. Coburn, & Deborah A. Connolly.*

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We examined mental context reinstatement (MCR) and event frequency on children’s memory for an event. Children participated in either one or five magic shows and were interviewed one week after the event. Few effects of MCR were found. In free recall, there were fewer general responses for repeated event children when they received MCR. In cued recall, MCR resulted in children reporting more experienced details and fewer don’t know responses.

**22 Memories for Smilies & Frownies: Sex Differences in Memory**

*Nada Alaifan & Peter Graf*  
 nada.alaifan@psych.ubc.ca

Current research indicates that women differ from men at remembering emotional events. The present study aims to investigate sex differences in memory for emotional materials. In the study phase, male and female participants were presented with three types of pictures: negative, positive and neutral. During the display of pictures, participants were asked to rate pictures in terms of their repulsiveness/attractiveness. After a short delay of filler tasks, participants were tested in their ability to distinguish the previously displayed pictures from the distracted once. The preliminary findings suggest that there are sex differences in response time but not for the accuracy.

**23 Stealing Memories: The Egocentric Source Monitoring Bias Following Collaborative Remembering**

*Jared Frank, Jack Hallmark, Davis Harford, Madison Johnson, Kyle Manske, Heather Tower, Hanna Webster, Alia Wulff, Madeline C. Jalbert, & Ira E. Hyman*  
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People come to an agreed-upon version of the past through collaborative remembering. However, people may display an egocentric bias, wherein they steal the memories of others and believe they originally encoded the information themselves. Individuals and pairs viewed pictures that contained unique and shared objects. After a collaborative remembering session, subsequent source monitoring tests showed a clear egocentric bias. We investigated the importance of collaboration in this egocentric bias.

**24 Memory Performance in Rodent Model of Shift Work Meal Time**

*Sylvie Couture-Nowak, Brianne A. Kent, Christian Petersen, & Ralph Mistlberger*  
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Shift workers are at risk for developing metabolic disorders, in part due to night time food intake. The present study investigated the potential cognitive effects of eating at night by assessing novel object recognition memory performance in mice fed during the day or night. Day fed mice performed equally as well as night fed, questioning previous findings that incongruent feeding time results in a memory deficit.

**25 A Generalized Linear Mixed Model of Signal Detection Theory**

*Maximilian M. Rabe, Reinhold Kliegl, & D. Stephen Lindsay*  
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Signal detection theory (SDT) is commonly applied by calculating  $c$  (response bias) and  $d'$  (sensitivity) from mean hit and false alarm rates per subject or item. An approach is demonstrated which embeds SDT in a generalized linear mixed model (GLMM). The approach helps overcome several problems such as loss of precision due to data aggregation or necessity to correct for ceiling effects, and facilitates maximum-likelihood or Bayesian estimation.

<b>Paper Session III: Cognitive Development &amp; Applied Research (3:30 – 4:45)</b>
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**Individual Differences in the Other Race Effect**

*Mario J. Baldassari, Shalina Kara, & D. Stephen Lindsay*

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We investigated the reliability of individual differences in the size of the Other Race Effect (ORE) using a delayed match to sample task. Preliminary results suggest that differences in response bias and witness confidence may vary enough to be informative, even when sensitivity is near ceiling. This study is the first step toward testing individual differences in the size of the ORE as a predictor of eyewitness identification accuracy.

**Attentional Selection in Low and High ADHD Symptom Groups**

*Alannah Wallace, Grace Iarocci, & John McDonald*

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Event related potential (ERP) indices of attentional selection (N2pc) and suppression (PD) were used to determine whether individuals who score high on an ADHD self-report scale have difficulty in searching for a visual object of interest or suppressing a potentially distracting visual stimulus. An impairment in distractor suppression was evident: A PD was observed in a group of low-symptom individuals but was absent in a group of high-symptom individuals.

**Avoidance-Based Scenarios Inflate Theory-of-Mind Errors in the Sandbox**

*Daniel G. Derksen, Patricia I. Coburn, Andre Aßfalg, & Daniel M. Bernstein*

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We tested individuals' understanding of mental-states (theory of mind) using a false-belief test. Objects were hidden from naïve characters who held false beliefs about the items' locations. Reasoning about characters' false beliefs resulted in greater bias than reasoning about objects' actual locations—a theory-of-mind error. Our computerized, continuous measure of theory-of-mind errors will permit direct age comparisons across the lifespan.

**Social Cognition in Fetal Alcohol Spectrum Disorders (FASD)**

*Michelle C. Hunsche, Megan E. Giroux, Brian Katz, Karen Janzen, & Daniel M. Bernstein*

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Theory of Mind (ToM) is the ability to understand one's own or another's mental state. This social-cognitive ability is impaired in children with fetal alcohol spectrum disorders (FASD). Compared to typically-developing children (3-17 years old), children with FASD performed more poorly on select measures of affective and cognitive ToM. Contrary to prior findings, results suggest that cognitive ToM improves with age in children with FASD, while affective ToM remains stable.

**The Effect of Language on Judgements of Individual Persistence in Fairy Tales**

*Kyle Dadgar, Kristan Marchak, & Geoff Hall*

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We examined whether judgements of individual persistence depend on sortal (i.e., kind) persistence following a transformation, by assessing how language influences inferences about the fairy tale, The Frog Prince. 3-year-olds, but not 5-year-olds or adults, were more likely to judge the character to persist when the transformation was described using language that implied continuity. This suggests that children initially rely on an object's sortal for judgements of its persistence.

Keynote Address
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**I knew it and so did you! Social cognition across the lifespan****Dr. Daniel M. Bernstein*****Canada Research Chair in Lifespan Cognition, Kwantlen Polytechnic University***

Social cognition permits us to communicate and empathize through our assessment of what others know and feel. Yet, our own knowledge and feelings often limit our ability to take another's perspective, or know how another feels. Our own knowledge can also limit our ability to recognize our own prior ignorance. These errors occur frequently in children, but also in adults. A challenge for social scientists is to develop tools and methods to study social cognition in children and adults. I will present work exploring social cognition from preschool to old age. Fusing developmental, cognitive, and learning sciences, this research can benefit researchers, teachers, students, policy makers and parents.

SATURDAY, MAY 14<sup>TH</sup>, 2016**Paper Session IV: Perception (9:00 – 10:15)****The origin of motor priming effects induced by manipulable objects***Corson N. Areshenkoff, Daniel N. Bub, & Michael E.J. Masson*

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Handled objects (like beermugs) are often seen to prime motor actions associated with their use. These effects are commonly assumed to result from "motor affordances", but several authors have questioned whether the effects are actually motor in all, or whether they are something semantic and abstract. By tracking the motion of the hand as it executes a motor response, we provide evidence that such effects reflect true motor affordances.

**Face Clouds: Modelling within-person face variability***Alison Campbell & James Tanaka*

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Face recognition is essentially a process of categorizing face images (retinal or photographic) into face identity categories. Theoretical models of face recognition represent identity categories in a psychological face space to explain empirical findings in tasks emphasizing between-person discrimination. We extend this model to account for within-person recognition effects using new multidimensional scaling techniques to represent within-identity face variability as identity face clouds within face space.

**Investigating Neural Sensitivity to Face Identity in Adults with Autism Using EEG***Patrick Dwyer, Buyun Xu, & Jim Tanaka*

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We used the EEG fast periodic oddball paradigm to isolate brain responses reflecting discrimination of face identities (the individuation response) from the generic response to face presentation. Generic and individuation response amplitudes were both larger to upright than inverted faces, indicating that holistic processing was employed. No differences were found between participants with autism and controls, suggesting that adults with autism are sensitive to face identities at a perceptual level.

**Compatibility Effects Evoked by Pictures of Graspable Objects***Maria H.J. van Noordenne, Daniel N. Bub, & Michael E.J. Masson*

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Pictured objects, it is claimed, yield correspondence effects due to the automatic evocation of motor affordances. Alternatively, such effects may be due to abstract spatial codes. We show that automatic limb-specific correspondence effects occur when laterality judgements are made to images of hands while subjects attend to graspable objects. Qualitatively different effects occur when responses are made to the direction of an arrow under the same task conditions.

**Perceptual Expertise in Classifying Mammograms and Faces***Michael Chin & Jim Tanaka*

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The visual strategies that allow for radiologists to rapidly classify mammograms are not well understood. We asked if radiologists were subject to the inversion effect in mammograms that makes face analysis harder if the faces are inverted. Whereas the radiology residents failed to show a reliable orientation

effect, the experienced radiologists performed more accurately with upright mammograms. This inversion effect in experts but not residents is consistent with holistic processing.

### Speed Talks 2: Perception & Attention

#### **Reading Ability of Children Treated for Amblyopia**

*Laveniya Kugathanan, Marita Partanen, Violet Chu, Christopher Lyons, & Deborah Giaschi*

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Amblyopia is a common developmental disorder, with the main deficit being reduced visual acuity in one eye that cannot be corrected with lenses. Using standardized tests, we found poorer binocular reading performance in children treated for amblyopia compared to age-matched controls. Reading was not correlated with visual acuity or intellectual functioning. Our results also indicate that several children read at a level that might benefit from reading supports at school.

#### **Inspired by Mary Jane: An examination of the relationship between cannabis use and creativity**

*Emily LaFrance & Carrie Cuttler*

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Increased creativity is a commonly reported effect of cannabis use. Despite the common conception that cannabis enhances creativity, the literature is sparse and the results are equivocal. The purpose of this study was to examine the relationships between cannabis use, self-reported creativity, and performance on divergent (Alternate Uses Task) and convergent (Remote Associates) thinking tasks. Preliminary results show that cannabis use is associated with enhanced creativity.

#### **What's the relationship between affect and the scope of attention: a new answer to an old question?**

*Anna Maslany, Nikita Morar, & Peter Graf*

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Motivational Intensity theory argues that scope of attention is determined by the strength of the tendency you have to move towards or away from an event. The stronger it is, the more attention will narrow. The purpose of our study is to test this prediction. In each trial, participants rated the attractiveness of pictures and completed a Flanker letter task to measure attentional scope. Results were somewhat inconsistent with theory.

#### **Do the Eyes Have It? Evidence Against Social Gaze Cueing**

*George Kachkovski, Daniil Vasilyev, M. Kuk, T. Welsh, & Alan Kingstone*

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The classic Posner Paradigm demonstrated that reaction times are quicker to a stimuli when there is a predictive arrow pointing to it. Friesen & Kingstone (1998) altered Posner's paradigm by using faces as the cue, and provided evidence of a social gaze cueing effect. We tested whether the effect was the result of social gaze, or directional cueing.

#### **Neural Dynamics of Spontaneous Thought: An EEG Study**

*Manesh Girn, Eric Laycock, Melissa Ellamil, Lawrence Ward, & Kalina Christoff*

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Spontaneous thinking constitutes a ubiquitous aspect of our mental life and has increasingly become a hot topic of research in cognitive neuroscience. To date, functional neuroimaging studies of spontaneous thought have revealed general brain recruitment centered on a combination of default

mode network and executive regions. The precise temporal relationship between the regions recruited, however, has yet to be fully elucidated.

### **The Brain on Tylenol: Acetaminophen Amplifies Disengagement from External Stimuli During Internally Directed Thought**

*Sumeet Mutti, Jennifer Yip, Daniel Randles, Diana Pricop, Julia W. Y. Kam, Steven J. Heine, & Todd C. Handy*

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Long known as an analgesic, acetaminophen (or Tylenol) has recently been shown to not just reduce social pain, but lessen reactivity towards affectively salient stimuli and attenuate error evaluation processing in cortex. Notably, these latter two effects directly parallel the impact of mind wandering on affective and error-related processing, raising the possibility that acetaminophen may facilitate neurocognitive disengagement from external stimulus inputs during periods of mind wandering.

### **Crime Blindness: The Impact of Inattentive Blindness on Eyewitness Memory and Identification**

*Alia Wulff, Megan Connell, Dayna Guzman, Madison Johnson, Amanda Kemp, Rochelle A. Robinson, Claire Tyler, Hanna Webster, & Ira E. Hyman*

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Inattentive blindness is a failure to become aware of something obvious when selectively focused on one event in a complex environment. We investigated the impact of inattentive blindness on eyewitness memory. As predicted, selectively focused participants experienced inattentive blindness for a theft. Participants who experienced inattentive blindness were more susceptible to erroneous identifications but displayed better memory for their focus of attention.

### **Mind-Wandering in Leisure**

*Giping Edouard Tomczyk, Trish Varao-Sousa, & Alan Kingstone*

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Traditionally, mind-wandering has been investigated through standard laboratory tasks such as reading, visual search, or working-memory tasks. The current study attempts to explore mind-wandering in a more naturalistic “leisure” setting. We were also interested in determining how different visual platforms affect attentional processes. Mind-wandering rates, interest, and attention ratings were measured across various different visual platforms while participants played video games.

## **Poster Session 2 (Saturday, 11:45 – 1:00)**

### **1 System I and System II Decision Making in a Medical Context**

*Marie Schulze, Chad C. Williams, Bruce Wright, & Olave E. Krigolson*

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The purpose of the current study was to determine an electroencephalography (EEG) measure of system I and system II decision making within a medical context. Participants viewed patient medical cards to diagnose diseases with varying degrees of similarity. With less distinguishable diseases, there was higher alpha and theta activity in the medial frontal cortex in comparison to highly distinguishable diseases.

**2 Playing God: Linking Politics and Religiosity to Attitudes towards Physician-Assisted Suicide**

*Mohit Bassi & Andrea Hughes*

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This study investigated the effects of culture (individualism/collectivism) and illness (physical/psychological) on attitudes towards physician-assisted suicide (PAS). Participants read one of four vignettes; manipulating culture and illness of a patient. Measures include attitudes towards PAS, religiosity, and political affiliation. Results suggest type of illness had a significant impact on support for PAS but culture had less of an influence. Results will be discussed in relation to religiosity and political affiliation.

**3 Babies on the Brain: The Neural Correlates of the Own Race Bias and Kindchenschema**

*Sarah Martinez, Mickey Leytze, Kathleen Lucier, Andrew Jay, Bette Brownstein, Kelly Oberbillig, McNeel Jantzen, & Kelly Jantzen*

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Infant features ("baby schema") preferentially draw attention over adult faces and may receive enhanced processing sufficient to negate own-race biases. We performed an EEG study to evaluate how race and baby schema interact to influence the cortical processing of faces. We used a 64-channel EEG to measure cortical dynamics when viewing same- and other-race infant and adult faces. Responses are interpreted in the context of N170, P2, and LPC components.

**4 Stretch Your Mind: The Effects of Yoga, Aerobic, and Resistance Exercise on Executive Functioning**

*Aria Petrucci, Emily LaFrance, Christopher Connolly, & Carrie Cuttler*

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Previous research indicates that an acute bout of exercise improves many cognitive domains, including executive functioning. However, no research has compared the acute effects of yoga to aerobic and resistance exercise. Participants were randomly assigned to sit or engage in yoga, resistance, or aerobic exercise before completing the Tower Test of executive functioning. Preliminary results suggest that aerobic exercise improves planning time relative to the other exercise modalities or sitting.

**5 Using the Posner Cueing Task to Elicit the Effect of Age on Spatial Attention**

*Emma Riggsby, Olav E. Krigolson, & Francisco L. Colino*

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The purpose of this experiment was to use a spatial cueing task to examine the effect of age on spatial attention. Each participant completed a computerized spatial cueing task with a MUSE EEG system recording the electrical activity of the brain. Event-related potentials were quantified in the EEG waveforms which showed that attention decreases with age.

**6 Response latency of many sequential lineup IDs**

*Ryann Tansey, Mario Baldassari, Nicole Laird, Aidan Crossley, & D. Stephen Lindsay*

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Witnesses to crimes sometimes do not want to assist police and hence do not identify the culprit in a lineup even though they recognize him/her. We found that subject/witnesses who were instructed to deny recognizing the culprit from a crime video were slower to say "No" to the culprit than to foils, suggesting that response latency may provide an indirect measure of culprit identification.

**7 An Investigation into the Role of Athleticism on the Long-Term Deficits in Set Shifting Following Concussive Impacts**

*Philip Chkipov, Iris Gordon, & Mauricio Garcia-Barrera*

philipchkipov@hotmail.com

Though concussions have been assumed to be transient in nature, subtle deficits in executive functioning have been found using EEG/ERP methods. Athletes with and without concussion history and sedentary controls were given a set shifting task. EEG and reaction times were recorded. Though not significant, concussed athletes had less efficient neural networks than non-concussed athletes, but still more efficient than sedentary controls, suggesting athleticism may buffer the effect of concussions.

**8 A University Education: A Cure for Ageism?**

*Ivy Myge, Lesley Jessiman, Besart Hysniu, Evan Sidhu, Veronica Draayers, David Croteau Jr., & Larissa Kowalski*

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Ageism greatly affects how older adults are treated and communicated with in society. The present study aimed to investigate the effect of university education on student's opinions of older adults. Participants completed questionnaires assessing their opinions of aging and their education level. The results indicate that the longer someone spends in university, there is a successive decrease in ageist opinions. This suggests that education may subsequently improve intergenerational communication.

**9 "I felt it all along": Hindsight bias for emotion**

*Michelle C. Hunsche, Jordan Procyk, Ragav Kumar, & Daniel M. Bernstein*

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Previous studies revealed that hindsight bias—relying on outcome knowledge when making judgments about a previous belief— occurs for negative but not positive emotions. We tested whether hindsight bias occurs for more distinctive stimuli (happy faces displayed amongst negative faces) versus less distinctive stimuli (happy faces displayed amongst positive and neutral faces). Results show that as emotional distinctiveness increases, judgements of previous beliefs become more accurate, and hindsight bias decreases.

**10 The Relationship Between Mental Representations of Hand Actions and the Classification of Directional Symbols**

*Tara E. Kuhn, Michael E. J. Masson, & Daniel N. Bub*

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We replicated an earlier finding that a briefly presented picture of a handled object (with handle on left vs. right) or a left/right hand slows the classification of a left/right arrow when the picture corresponds to the left or right side of the body. We show that this reverse correspondence effect is not due to motor activation elicited by the picture, but to spatial coding of the picture.

**11 Switch Cost: the effect of an internally prepared action on a exogenously cued action**

*Katie E. Lawless, Daniel N. Bub, & Michael E.J. Masson*

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We examined the effect of a switch cost from an internally planned hand action to an externally cued action, which potentially differed from the prepared action along two dimensions: wrist orientation (horizontal or vertical) and left or right hand. Maintaining the originally planned orientation produced faster responses, but only if the hand remained constant between planned

and cued actions. This result provides evidence for a hierarchical coding of hand-action plans.

**12 Change Detection Within Line Drawings: Details Affect Search Performance**

*Jennifer A. Hoffmeister, Qiwan Shi, Laurissa Wilson, & Richard D. Wright*  
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We used a flicker task to study how the degree of detail of line drawings affects the speed of change detection. We developed a new method to systematically manipulate the level of image detail. Participants were faster to notice changes within line drawings that contained fewer details than within those that were more richly detailed. The findings have implications for search performance involving local details.

**13 Change Detection Within Mandarin Characters: Readability Matters**

*Qiwan Shi, Miao Tang, Ariel Cheung, & Richard D. Wright*  
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We used a flicker task to study whether the readability and the degree of modification affects the detection of changes to logographic characters. Participants were more sensitive to whole-character changes than to partial-character changes. Also, Mandarin readers were more sensitive than non-Mandarin readers to changes to Mandarin characters, but not to pseudo-Mandarin characters. Findings suggest that the readability of the characters helps facilitate processing of visual information.

**14 Change Detection and Pattern Complexity**

*Laurissa Wilson, Qiwan Shi, Lisa Haroldson, Chorok Gene, & Richard D. Wright*  
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We used a flicker task to study how the complexity of visual patterns affects the speed of detection of changes within them. Participants saw arrays of coloured blocks within a set of grid-like black lines that resembled Mondrian art. Changes within lower-complexity patterns were noticed fastest, and those within higher-complexity patterns were noticed slowest. Findings indicate that visual pattern complexity affects change-detection efficiency.

**15 Change Detection and Featural Complexity**

*Donna Gamboa, Qiwan Shi, Wendi Li, & Richard D. Wright*  
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We used a flicker task to study how the complexity of objects affects the speed of detection of changes to them. Participants saw arrays of 25 items of equal complexity (homogeneous displays) or differing complexity (heterogeneous displays). Regardless of display type, changes to low-complexity items were noticed fastest and those to high-complexity objects were noticed slowest. Findings indicate that item complexity affects change-detection efficiency but display homogeneity-heterogeneity does not.

**16 Spatial or Motor Representations? What reducing the distance between responses can tell us about handled alignment effects**

*Connor MacRae, Daniel N. Bub, Michael E. J. Masson, Maria H. J. van Noordenne, & Gabriella Marshall*  
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Handled objects produce alignment effects on left- and right-handed key-press responses, but not when responding with two fingers on one hand. This suggests that perceiving handled objects can automatically evoke limb-specific motor representations. We demonstrated that

reducing the distance between keys for between-hand responses produces equivalent alignment effects as the within-hand responses. This finding suggests the alignment effect isn't the result of a motor compatibility, but instead a spatial compatibility.

**17 Training perceptual object expertise with artificial object creatures**

*Akshay Bhasin, Jocelyn Chalmers, Simen Hagen, & Jim Tanaka*

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This study examined how categorization training influences perception. Two families of artificial stimuli (SheinBugs) were designed. Participants were trained to recognize one family at the species level, and the other at the family level. Participants were tested on recognition of both families before and after training. Gains were only observed for the family with which they engaged in expert-like recognition. Thus, expertise was a consequence of training at specific level recognition.

**18 Reaching towards others: is it special?**

*Jane J. Kim, Jill A. Dosso, & Alan Kingstone*

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Object-directed actions can be influenced by the location of others in the environment. This study investigated whether the distance between the self and another individual could affect behaviour in a repeated reaching task. Pairs were positioned face-to-face or seated diagonally from one another. When facing a partner, reaches to more distant items were delayed, and actions were more systematic, than when seated diagonally.

**19 Unfamiliar face perception: using sorting tasks to infer face identity categories**

*Jessica Samuel, Veronica Plihal, James Tanaka, & Alison Campbell*

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Categorizing images of unfamiliar faces uses image-based representations, making the task perceptually harder due to image variability. The present study examines (1) if image presentation affects performance in unfamiliar face categorization and (2) systematicity occurrence in image categories. Performance was better when images were presented simultaneously rather than sequentially, and cluster analyses indicated consistent patterns in the way images were categorized, suggesting the use of similarity judgements of image-based features.

**20 The Combination Mechanism Causing Category Distortions in a 3D Virtual Environment**

*Michael Williams, Chase Walsh, Alex Engelbertson, Sabrina Menezes, & Cristina Sampaio*

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Location memory is the compromise between a target's metric position and its region, an effect called the category bias. The bias has been robustly found in cases where individuals locate dots within 2-D geometric spaces. We investigated the bias in locating 3-D objects in a virtual environment. We analyzed the data using a new distribution analysis and found similar combining mechanisms as those found with the dot localization task.

**21 Dispositional influences on priming for emotional words**

*Susanna Piasecki, Regard M. Booy, & Mario Liotti*

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Selective attention biases, potential depression vulnerability markers, were examined using a NAP task. Attention facilitation and attention disinhibition to mood-congruent words were

assessed in 93 female undergraduates with affective trait dispositions, isolated using NEO-PI-R subscales (depression and positive emotions). Results do not support negative biases in depression but suggest a processing advantage for all emotional material. Counterintuitive valence asymmetries in positive priming are interpreted via emotion-regulation and motivational systems accounts.

**22 Language-Induced Stimulus-Response Compatibility: Simulations or Stereotypes?**

*Morgan Teskey, Daniel N. Bub, & Michael E. J. Masson*

morganteskey@gmail.com

Embodied accounts of language processing propose that meaning is constructed with the assistance of relevant sensory-motor representations. For example, understanding a sentence describing movement in a clockwise or counterclockwise direction is more efficient when simultaneously viewing a stimulus moving in a compatible direction. We show that this effect is likely due to reliance on a stereotypical action direction implied by a verb phrase rather than to evocation of motor representations.

**23 Reward positivity amplitude to feedback stimuli that predict monetary rewards and electric shocks in goal-directed task paradims**

*Sepideh Heydari & Clay B. Holroyd*

heydari@uvic.ca

In previous experiments, consistent with other studies, we demonstrated that positive feedbacks, even stimuli predicting the omission of pain, elicit reward positivity (RewP). New experiment's results showed that achieving the larger task goal affects RewP amplitude. Results are consistent with a recent theory that holds that the ACC sustains extended sequences of actions to effect goal-directed effortful behaviors – here, to withstand getting multiple shocks in order to finish the task.

**24 Getting From A to G: Neural Responses During a Goal-Directed Process**

*T. Bryn Grey, Cameron D. Hassall, & Olave E. Krigolson*

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Humans appear to use reinforcement learning (RL) principles to learn and make decisions. Substantial work has been done using RL models to explain neural responses to reaching a goal. This study examines the neural response to transitions between intermediate states in a multi-step goal-directed activity using electroencephalograms; specifically the amplitude of the reward positivity ERP component in response to expected and unexpected transitions toward and away from a goal state.

**25 Using Fast Periodic Visual Stimulation to Measure Perceptual Expertise with Artificial Objects**

*Taryn Berman, Rebecca Louw, Evelina Michniak, Simen Hagen, & James Tanaka*

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The Fast Periodic Visual Stimulation (FPVS) paradigm uses rapidly presented visual stimuli in conjunction with electroencephalography to analyze neural activity. Participants were trained to a level of expertise using artificial objects, and evaluated on their discrimination abilities using an oddball paradigm within FPVS. This was used to determine whether different levels of category training would be sufficient to elicit a differential response. This was not found to be the case.

**26 Implicit Learning Mechanisms: Implicating the P300 Component**

*Stephen J.C. Luehr, Francisco L. Colino, & Olav E. Krigolson*  
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Here we elaborate on the role of the P300 event-related brain potential component in implicit learning of stimulus frequencies without feedback. Specifically, we hypothesised that the amplitude of the P300 reflected an implicit prediction error. Trial-by-trial analysis suggested reinforcement learning processes were taking place based on implicit violations of frequency. Source localization supports that the posterior parietal cortex may play a role in implicit learning mechanisms in absence of feedback.

**27 The role of self-efficacy in distinguishing important information**

*Faith Jabs, Trish Varao-Sousa, Jonathon Fawcett, & Alan Kingstone*  
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Prior research suggests that the ability to correctly identify important information in a lecture is related to high ratings of self-efficacy. This study examined a manipulation of self-efficacy, with the intention of improving ability to discriminate between important and unimportant information in a lecture. Participants watched a video on improving note-taking skills, or a control video, they then watched an online lecture and selected information they considered important.

<b>Paper Session V: Attention (1:00 – 2:15)</b>
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**Abrupt-onset attention capture within the attentional window**

*Daniel Tay & John J. McDonald*  
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Abruptly appearing visual stimuli that normally capture attention can be ignored when attention is already focused on a small region of space. Here we asked whether observers can ignore abrupt onsets when attention is distributed more widely. Abrupt-onset targets triggered an ERP component associated with attentional selection (N2pc). A smaller N2pc was observed when the same abrupt onset was irrelevant, indicating that some top-down control of abrupt-onset capture is possible.

**Selection of Multiple Objects Impairs Subsequent Visual Search during the Attentional Blink**

*Kristen Thompson & John McDonald*  
kmt13@sfu.ca

Participants performed an attentional blink (AB) task that required enumeration of one, three, or four disks (T1) and then discrimination of a subsequent visual-search target (T2). The N2pc component elicited by the search target was delayed during the period of the AB, and the duration of this delay increased as a function of T1 set size. These results indicate that search is delayed during the spatial selection of T1 items.

**Here's Looking at You Kid: Preferential Attention to Same and Other Race Infant Faces Does Not Overcome the Other Race Effect**

*Sarah Martinez*  
sarahlynmart@gmail.com

We evaluated whether there is an own-race memory bias (ORB) for infant faces. Participants performed a recognition task for Black/White adult/infant faces. Recognition was worse for Black than White faces and, infants were recognized more poorly than adults. Although more Black infants drew more attention than Black adults, facial discrimination was not enhanced as a result. Results

may be better understood in terms of an Own Age Bias.

**Situational boredom as meta-awareness of the dullness of a task**

*Quentin Raffaelli, Caitlin Mills, & Kalina Christoff*

quentinraffaelli@gmail.com

We propose and test a model which regards situational boredom as a state of meta-awareness of the dullness of a given task. Subjects performed a SART 4 times before being given the choice to either mind wander or perform the SART a final time. Several measurements, including content of thoughts, level of dullness of the task, and agitation, were administered between blocks. Results were supportive of the model.

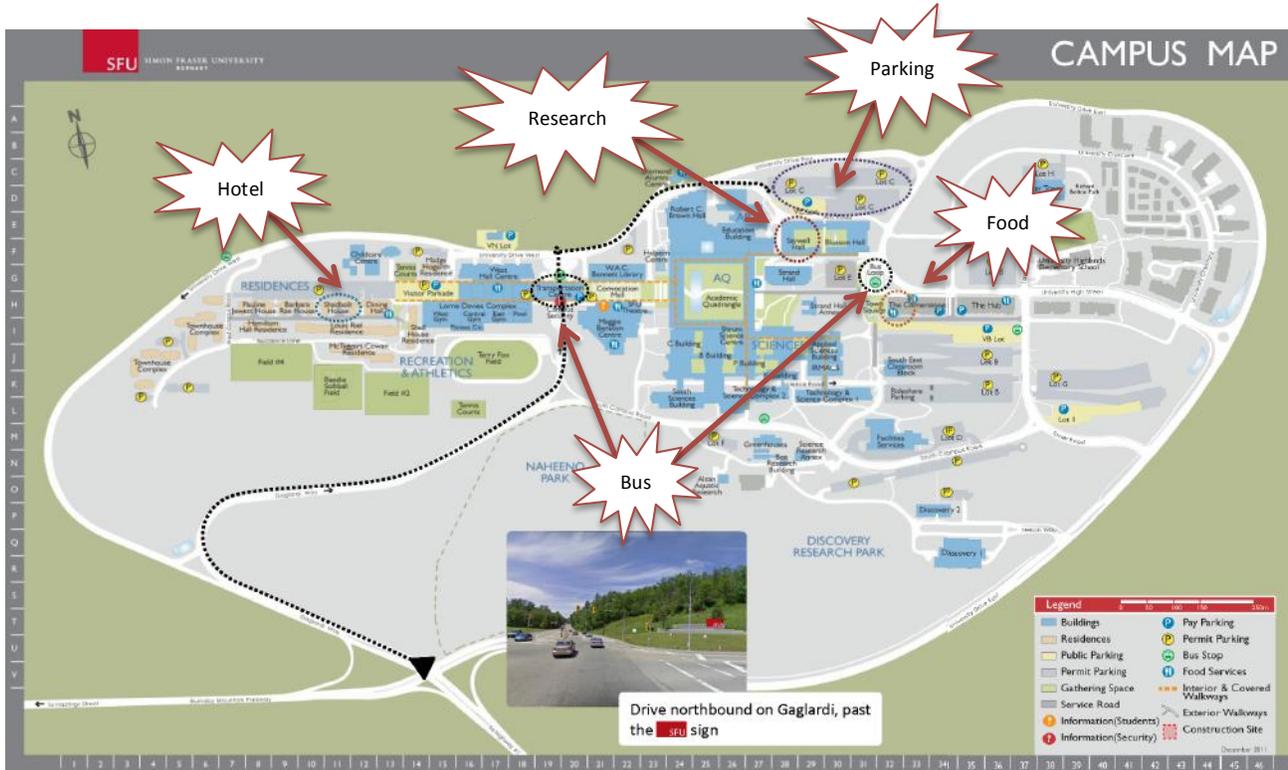
**Mind-Wandering and Psychopathology: A Review**

*Jennifer M. Yip & Todd C. Handy*

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Is there more to mind-wandering than just daydreaming, distraction from current events, or incubation for creativity? I will survey associations made between mind-wandering and psychopathology, and then use these relationships to elucidate a new aspect of mind-wandering. A preliminary framework will be presented: varying levels of engagement with our internal and external stimuli contribute to our mental states and well-being.

MAPS AND DIRECTIONS



Driving Directions to Burnaby Campus

**From the East**

Trans-Canada Highway (Highway 1) going west — take the Gagliardi Way exit 37.  
 Lougheed Highway (Highway 7) going west — turn right (north) onto Gagliardi Way.

**From the West**

Trans-Canada Highway (Highway 1) going east — take the Gagliardi Way exit 37.  
 Lougheed Highway (Highway 7) going east — turn left (north) at Gagliardi Way.  
 Hastings Street (Highway 7A) going east — take the right lane exit at the traffic light at Barnet Highway (just past the pedestrian overpass). Continue onto Burnaby Mountain Parkway.

**From the South**

Trans-Canada Highway (Highway 1) going north-west — take the Gagliardi Way exit 37.

**From Kwantlen Polytechnic University**

Head east. Turn left toward 72 Ave. Turn right onto 72 Ave. Turn left onto King George Blvd. Continue onto Pattullo Bridge (west). Continue onto Hwy 99 Alt (north). Turn right onto 10 Ave. Turn left onto Cariboo Rd. Turn right onto Gagliardi Way.

**From Border - Enter from Douglas (Canada)**

Head north on 0 Ave/ Peace Park Dr, take the ramp onto BC-99N, take exit 16 to merge onto BC-91N toward North Delta/ New Westminster, take exit 11 to merge onto BC-91A N, exit onto Stewardson Way toward New Westminster, continue onto Columbia St. Slight right onto Front St, continue onto E Columbia St, continue onto North Rd. Turn left to stay on North Rd. Turn left onto Broadway. Turn right onto Gaglardi Way. Sharp right onto University Dr E. Turn left onto Tower Rd, turn left onto S Campus Rd, continue onto Gaglardi Way, keep left onto the fork. Turn left onto University Dr E. Turn left at Trans Canada Trail. Turn left, destination will be on the left.

**From Border - Enter from Pacific Highway (Canada)**

Head north on 176 St/ Pacific Hwy/ BC-15 N toward 1 Ave, continue to follow Pacific Hwy/ BC-15N. Take the BC-1 W/ Trans-Canada Highway ramp to Vancouver. Merge onto BC-1W. Take exit 37 for Gaglardi Way. Turn right onto Gaglardi Way, keep left at the fork. Sharp right onto University Dr E. Turn left onto Tower Rd, turn left onto S Campus Rd, continue onto Gaglardi Way, keep left onto the fork. Turn left onto University Dr E. Turn left at Trans Canada Trail. Turn left, destination will be on the left.

**From the Vancouver Airport**

Take Marine Way (east). Turn left (north) onto Boundary Rd. Turn right (east) onto Lougheed Highway. Turn left (north) onto Gaglardi Way.

**Transit Directions to Burnaby Campus**

Current schedules, route maps and fares for bus, SkyTrain, SeaBus, and West Coast Express services are available at [www.translink.bc.ca](http://www.translink.bc.ca)

**#95 bus**

Daily, from the Burrard Street SkyTrain Station downtown to SFU Burnaby by way of Hastings Street, Burnaby Mountain Parkway, Gaglardi Way, University Drive East and East Campus road to SFU Exchange.

**#143 bus**

Monday to Friday only, from Coquitlam Station to SFU Burnaby via Lougheed Highway, Dewdney Trunk Road, Mariner Way, Como Lake Ave., Broadway, Gaglardi Way, University Drive East, and East Campus Road to SFU Exchange.

**#144 bus**

Daily, from Metrotown Station to SFU Burnaby via Central Boulevard Bonsor, Bennett, Nelson, Dover, Oakland, Burris, Canada Way, Sperling, Deer Lake Avenue, Deer Lake Place, Burnaby City Hall, Deer Lake Place, Norland, Sprott, Kensington off-ramp, Sperling, Sperling Station, Sperling, Kensington on-ramp, Broadway, Duthie, Hastings, Burnaby Mountain Parkway, Gaglardi Way, University Drive East and East Campus Road to SFU Exchange.

**#145 bus**

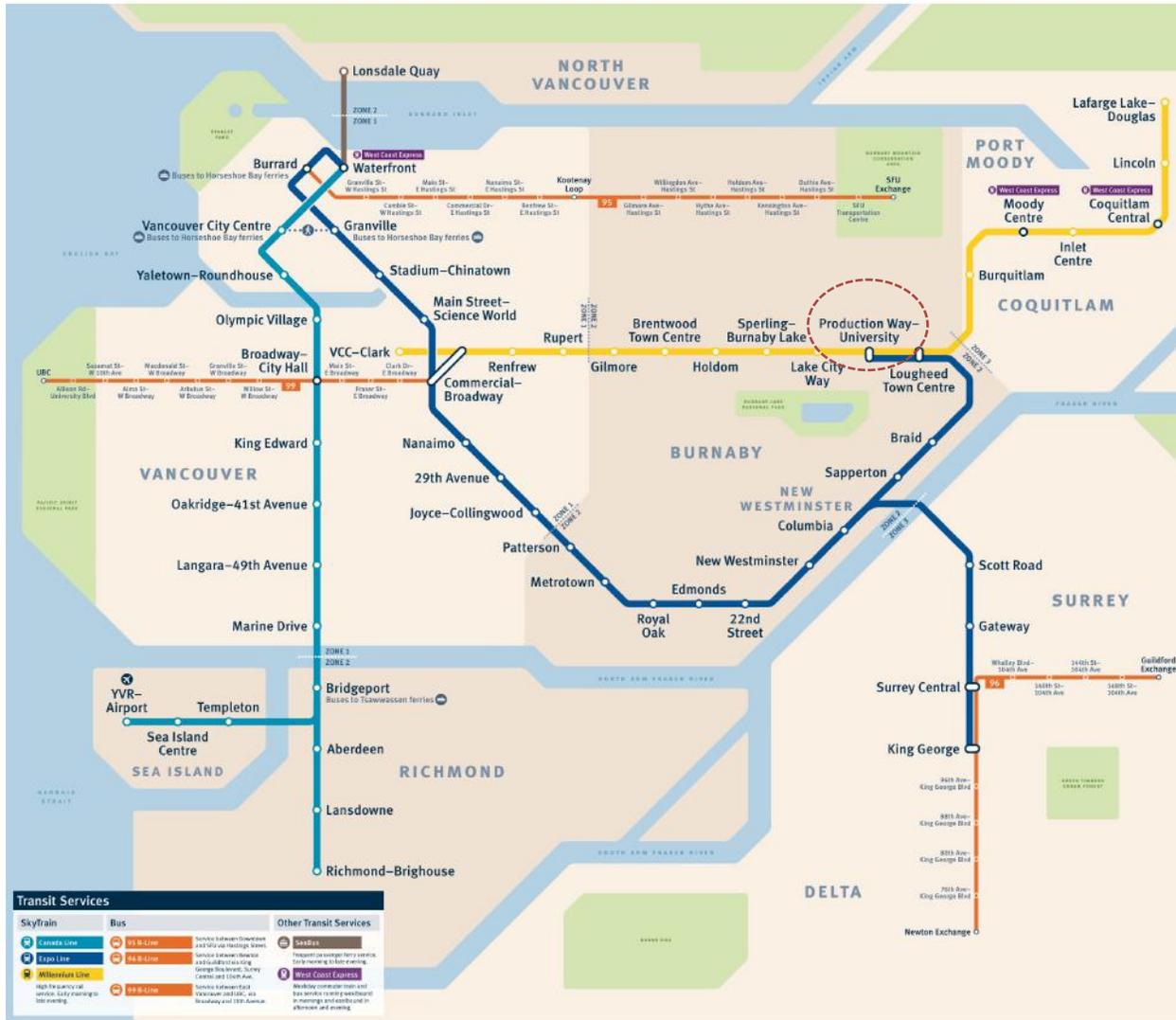
Daily, from Production Way SkyTrain Station to SFU Burnaby via Production, Broadway, Gaglardi Way, University Drive East and East Campus Road to SFU Exchange.

**#N35 night bus**

Limited night-time service throughout the week from downtown Vancouver (Howe at Pender) to SFU Burnaby via Howe, Georgia, Seymour, Hastings, Burnaby Mountain Parkway, Gaglardi Way, University Drive East and East Campus Road to SFU Exchange.

**By SkyTrain**

The nearest SkyTrain station to SFU Burnaby is Production Way, on the Millennium SkyTrain Line. From the Production Way station, take the #145 bus that goes daily to and from Burnaby campus. See map, below.



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