NOrthWest Cognition And Memory

2016

University of British Columbia

NOWCAM 2016 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

Visitors to UBC can access the internet using the ubcvisitor network. Simply select the network, connect, and open a web browser to sign in. You will need to enter an email address to access the internet.

Transit Information

From the on-campus accommodations at Ponderosa, the conference venue (Forestry) is a short 5-10 minute walk. If you are staying off campus you may take any of the following buses to UBC (exact change only, $2.75): 4, 9, 14, 25, 33, 41, 43 (express bus), 44, 49, 84, 99 (express bus), 480 (weekdays only)

Google Maps will give you routes and schedules if you search for a route between two locations and select the bus/transit option.

Acknowledgements

NOWCAM 2016 is supported by generous financial contributions from the UBC Department of Psychology and the UBC Provost. Special thanks to Eric Eich for his intervention in securing the financial support from the Provost's office for the coffee/snack breaks.

NOWCAM 2016 was organized by Lizzy Blundon, Michelle Crease-Lark, Janel Fergusson, Peter Graf, Anna Maslany, Natasha Pestonji, and Trish Varao-Sousa.

Gala Information

The gala dinner will be held on Friday, May 13th, at 6:30 pm. The dinner is at the UBC Golf Club, 5185 University Boulevard. The UBC Golf Club is approximately a 30 minute walk or 15 minute bus ride from the on-campus accommodations. Take bus 4 or 14 from the trolley bus loop in front of Mahoney & Sons/Shoppers on University Boulevard. Your stop is EB University Blvd at 5100 Block. Parking is available at the Golf Club.

Pre-payment is required. You do not need a physical ticket – your name will be on a list. If you have special dietary needs, please make sure that the organizing committee is aware of them and pick up a place card when you arrive at the dinner. One bottle of red wine and one bottle of white wine is provided per table, and a cash bar is available for any additional beverages.

Condensed Program

Thursday, May 12th, 2016

7:00 pm – late **Social Event – No Host Reception at Mahoney & Sons, 5990 University Blvd.**

Friday, May 13th, 2016

***Forest Sciences Center,* 2424 Main Mall, Vancouver**

8:30 am **Registration Open – Coffee and Tea Provided**

9:15-10:30 **Paper Session 1**

9:15 Welcome

9:30 Parallel Encoding of Competing Action Plans Alters the Execution of a Reach and Grasp Response
Corson N. Areshenkoff, Daniel N. Bub, & Michael E.J. Masson

9:45 Assessing the Impacts of Violating the 180 Degree Rule
George Kachkovski, Chris N.H. Street, Daniil Vasilyev, Michael Kuk, & Alan Kingstone

10:00 Repeated Search in Partitioned Spaces
Grayden Solman

10:15 Relating Language Comprehension and Motor Actions
Morgan Teskey, Michael E. J. Masson, & Daniel N. Bub

10:30 - 10:45 **Break**

10:45 - 12:00 **Paper Session 2**

10:45 Non Probative Photos and the Backfire Effect
Andrew Huebert, Eryn Newman, & Daniel Bernstein

11:00 The (In)credibles: Perceptions of Memory Reports for Repeated Events
Camille C. Weinsheimer, Deborah A. Connolly & Carla MacLean

11:15 Mechanisms Underlying Feedback-Based Reduction of Framing Bias
Cristina G. Wilson, Paul M. Whitney & John Hinson

11:30 Predictive Value of PTC Test Weakened with use of Diverse, Description-Matched Mini-Lineups
Mario J. Baldassari, Justin D. Kantner, & D. Stephen Lindsay

12:00 - 1:30 pm **Lunch (Provided) & Poster Session 1**

1:30-2:20 **Concurrent Speed Talks Session 1**
Room 1001

1:30 The Role of Anxiety In Pareidolia and Detection of Camouflaged Animals
Farhad Dastur & Kevin Smith

1:40 Action Representations Evoked by Disembodied Object Handles
Ragav Kumar, Michael E. J. Masson, & Daniel N. Bub

1:50 You're In My Space: The Structure of Action in Interpersonal Space
Natalie T. W. Wong, Jill A. Dosso, & Alan F. Kingstone

2:00 An Examination of Gender Differences in the Influence of Cannabis on Memory
Mackenzie Allison, Marcella Teixeira-Marques, & Carrie Cuttler

2:10 Does Corrective Feedback Improve Recognition Accuracy Across Study-Test Cycles
Shaela T. Jalava & Glen E. Bodner

Room 1003

1:30 Effects of Mood on Cued vs. Uncued Cognitive Flexibility
Amy T. Nusbaum, Paul Whitney, & John M. Hinson

1:40 The Valence of Pictures is Influenced by the Context Valence in Which They Occur
Elnaz Bondar, Jyllian Lu (Zhoutian), Anna Maslany, & Peter Graf

1:50 Heart & Mind: Affect and Cognition in Decision-making
Jacqueline Hart Smith, Peter Graf, Anna Maslany & Natasha Pestonji

2:00 Time Goes By So Slowly: The Effect of Affect on Time Estimation
Janel Fergusson, Anna Maslany, & Peter Graf

2:10 The Bland and Beautiful: Target Pictures Ratings are Affected by Contexts
Jyllian Lu (Zhoutian), Elnaz Bondar, Anna Maslany, & Peter Graf

2:20 - 2:45 Break

2:45 – 3:50 Concurrent Speed Talks Session 2

Room 1001

2:45 Precrastination
Alexandra Stubblefield, Brian Dyre, Ezana Taddese, Bryan Haflich, & Lisa Fournier

2:55 What is the Optimal Time for Students to be Tested? The Impact of Time of Day on Young Adults' Fluid Intelligence
Angela Giesbrecht, Kyle Prince, & Samantha Lutz

3:05 Remembering to Forget: Impaired Memory and Surprise Quizzes
Ayeesha Bhatara, Maryam Osman, Anna Maslany, Natasha Pestonji, & Peter Graf

3:15 Mind Wandering in Lectures: A Study of Students Catching Themselves
Trish Varao-Sousa & Alan Kingstone

3:30 Gambling-Specific Erroneous Cognitions
Carrie A. Leonard, Robert Williams, & John Vokey

Room 1003

2:45 Familiarity Breeds Contempt: Does The Mere Exposure Effect Hold with Negative Stimuli?
Natasha Pestonji & Peter Graf

2:55 The Sensitivity of Anterior Cingulated Cortex to Prediction Error at Two Levels of Hierarchy
Danesh Shahnazian & Clay Holroyd

3:05 Eyewitness Confidence: Post-Identification Feedback Affects Both Verbal and Numerical Expressions
Jillian Kenchel & Daniel Reisberg

3:15 The Diversity of Motor Sequencing In Skilled Video Game Performance
Joe J. Thompson, C.M. McColeman, Mark R. Blair, & Andrew J. Henrey

3:30 Humans' Willingness to Cooperate with a Computer Partner Depends On Feedback About the Team's Performance
Basil Wahn, Sonia Milani, Peter König, & Alan Kingstone

3:40 People with Autism: Lineup Identification and Facial Recognition Memory
Patrick Dwyer, Mario Baldassari, & D. Stephen Lindsay

3:50-5:00 Poster Session 2 & Light Snacks

6:30 Gala Dinner (ticket required) at UBC Golf Club, 5185 University Blvd

Saturday, May 14th, 2016

8:30 am **Registration Open – Coffee & Tea Provided**

9:00-10:30 **Keynote Speaker – Dr. Heather Price, University of Regina**
The Justice of Memory Evidence

10:30-10:45 **Break**

10:45-11:45 **Paper Session 3**

10:45 Adults' Memory for an Instance of a Repeated Event: The Influence of a Direct Connection Between Deviation and Context
Chelsey M. Lee, Dayna M. Woiwod, Patricia I. Coburn, & Deborah A. Connolly

11:00 Perspective-Taking is Unrelated to Hindsight Bias
Megan E. Giroux, Deborah A. Connolly, & Daniel M. Bernstein

11:15 Suggestibility for Misinformation in Scenes: How General Are Protective Effects of Testing?
Rosemary S. Pereverseff & Glen E. Bodner

11:30 Cortical Oscillations Underlying Working Memory for Ordered Groups
Tzu-Han Cheng, Jennifer C. Whitman, & Rebecca M. Todd

11:45-1:00 **Lunch (not provided)**

1:00 – 1:45 **Paper Session 4**

1:00 It's Complicated: The Relationship Between Affect and the Scope of Attention
Anna Maslany & Peter Graf

1:15 Turn That Frown Upside Down, or Into Any Shape You Want
Lia Kendall, Quentin Raffaelli, Alan Kingstone, & Rebecca M. Todd

1:30 All You Need Is <3
Quentin Raffaelli. Lia Kendall, Alan Kingstone, & Rebecca M. Todd

1:45-2:00 **Break**

2:00-2:45 **Paper Session 5**

2:00 Indicators of System I and System II Decision Making when Diagnosing Clinical Cases
Chad C. Williams, Mike Paget, Sylvain Coderre, Kelly Burak, Bruce Wright, & Olave Krigolson

2:15 Search Through time is (sort of) like Search Through Space: Behavioural and Electrophysiological Evidence
Lizzy Blundon, Sam Rumak, & Lawrence Ward

2:30 The Influence of Acute Psychophysiological Stress on Appetitive Conditioning
Mana R. Ehlers & Rebecca M. Todd

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1 ~~Culture Influences Executive Functioning and Prospective Memory~~ Withdrawn
Julie Chang & Peter Graf

2 Cross-Cultural Episodic Prospective Memory and Executive Functions
Alice Lee, Travis E. Baker, Mario Liotti, & Genevieve Fuji-Johnson

3 Influence of Cannabis Use on Age-Related Declines in Executive Functioning
Marcella Teixeira-Marques, Mackenzie Allison, Alexander Spradlin, & Carrie Cuttler

4 Adverse Childhood Experiences and Executive Functioning
Rachel Maja, Justin Karr, & Mauricio Garcia-Barrera

5 The Flexible Nature of Cognitive Control
Darian Sidebottom & Cristina Wilson

6 Stealing Memories: The Egocentric Source Monitoring Bias Following Collaborative Remembering
Alia Wulff, Norma Garcia, Emma Hutchison, Madeline C. Jalbert, & Ira E. Hyman Jr.

7 A Point to Remember: Pointing Improves Memory and Social Exclusion Hinders it
Fouziah Khairati, Oren Princz-Lebel, Sophie Lanthier, & Alan Kingstone

8 Making Your Point: Referential Cues Improve Verbal Memory In Men
Oren Princz-Lebel, Fouziah Khairati , Sophie Lanthier, & Alan Kingstone

9 ~~Individual Differences in Recognition Memory~~ Withdrawn
Damian Page & D. Stephen Lindsay

10 Working Memory Capacity and Theory of Mind
David Crumley & Lesley Jessiman

11 Does Exercise Improve Prospective Memory?
Emily Lafrance & Carrie Cuttler

12 The Effect of Subvocal Rehearsal Disruption on Young Children's Prospective Memory
Hannah Mohun, Caitlin E.V. Mahy, Ulrich Mueller, & Louis J. Moses

13 The Production Effect: Beyond Verbatim Memory
Nicholas Toews & Andrea Hughes

14 The NAP Effect: Distractor Inhibition or Episodic Retrieval?
Sylvie Couture-Nowak, Regard Booy, & Dr. Mario Liotti

15 Sleep and Memory
Arifa Hafeez & Levante Orban

16 "Lie to Me, Lie to Yourself? Dark Triad Traits, Dishonesty and False Memory"
Max Draymon & Nicole Vittoz

17 Electronic Cognitive Interview
Tahir Chatur, D Stephen Lindsay, & Mario Baldassari

18 Implicit Memory Associations in Gambling: Pilot Study Results
Gillian Russell, Robert Williams, & John Vokey

19 "Highlighting" The Importance of Classroom Lectures
Faith Jabs, Trish Varao-Sousa, Thariq Badiudeen, Jonathan Fawcett, & Alan Kingstone

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Bertrand Sager, Aaron Richardson, Carley Wood, & Thomas Spalek

21 ~~Metacognitive Awareness in Children with Attention Difficulties~~ Withdrawn
Sarah Pyne, Kimberly Kerns, Jenny MacSween, & Sarah Macoun

22 Real and Implied Presence: Effects of Social Presence on Attention and Choice
Allison Drody, Eleni Nasiopoulos, Joandrea Hoegg, & Alan Kingstone

23 Rapid Learning of a Novel Language: An Electroencephalographic Investigation
Talise N Lindenbach, Chad C. Williams, & Olave E. Krigolson

24 Rapid Category Learning of Warbler Species with Mixed and Blocked Conditions
Marlene Karl, Katie Morrish, Alison Campbell, & Jim Tanaka

25 Improving Artist Differentiation Using Rapid Category Learning
Cora-Lynn Bell, Taryn Berman, Jamie Kemp, Rebecca Louw, Alison Campbell, & James Tanaka

26 The Mechanism for the Effect of Complexity in Artificial Grammar Learning
Lauren Vomberg & John Vokey

27 Away From Keyboard: Involuntary Video Game Thoughts
Victoria S. K. Au & Kyle Alan Manske

28 Event-Related Potentials Reveal Distinct Spatiotemporal Dynamics of Stereotype Processing Between Conservatives and Liberals
Adam K. Baker, Susanna Piasecki, Brendan Torok, Travis E. Baker, & Mario Liotti

29 Early Emergence of Gender Stereotypes About Math and School in Childhood
Julie H.J. Oh, Antonya M. Gonzalez, & Andrew S. Baron

30 Perceptions of Elder Abuse
Bernadette Yeo & Lesley Jessiman

31 Reducing Paranormal Beliefs with Education
Carrie A. Leonard & Robert J Williams

32 Social Cognition and Decision-Making Across the Lifespan
Daniel G. Derksen, Eric Mah, Karan Bola, & Daniel M. Bernstein.

33 Failure to Replicate Peak-End Rule in Lifespan Sample
Jordan Procyk, Rachel Van Poele, Daniel Derksen, & Daniel M. Bernstein

34 Attitudes Toward Individuals with Disabilities
Manmeet Chhina & Levante Orban

Poster Session 2

1 Prevalence Effects in Motorcycle Conspicuity: A Change-Blindness Study
Bertrand Sager, Elisabeth Kreykenbohm, Brie Wish, & Thomas M. Spalek

2 Semantic Influence on Attention: Evidence From a Change Detection Task
Miao Tang, Qiwan Shi, & Richard D. Wright

3 How Are Covert Attention and Learning Related?
David McIntyre, Scott Harrison, & Huan Wang

4 Evidence for Attentional Momentum
Elisabeth Kreykenbohm, Bertrand Sager, Caitlyn McColeman, & Thomas M Spalek

5 Investigating Goal Switching and Single Representations of Target Stimuli in Attentional Blink (AB)
Ghoufran Talib, Hayley E.P. Lagroix , Thomas M. Spalek, & Vincent Di Lollo

6 T1-Related ERP Activity Throughout the Attentional Blink
Hayley E. P. Lagroix, Kevin M.D. Boyd, Nadja Jankovic, Aaron A.N. Richardson, Vincent Di Lollo, & Thomas M. Spalek

7 Are Infant Faces Attentionally Prioritized Regardless of Race?
Sarah Martinez, Kelly Jantzen, & McNeel Jantzen

8 Influences of Affect and Motivational Intensity on Attention
Emilie J. Ptak, Anna Maslany, & Peter Graf

9 Beneficial Effects of Mood States on Cognition
Haley Delgado, Sydney Wirkkala, & Amy Nusbaum

10 The Effects of Blushing on the Judgement of Others
Jordan Procyk & Levente L. Orbán

Abstracts

Friday, May 13th, 2016

Paper Session 1

Parallel Encoding of Competing Action Plans Alters the Execution of a Reach and Grasp Response

Corson N. Areshenkoff, Daniel N. Bub, & Michael E.J. Masson

Recent work has found evidence for the simultaneous encoding of multiple, alternative motor plans in situations where the action to be made has not yet been selected. By analyzing the kinematics of the hand in flight, we show that, when selecting a particular action, alternative possible actions held in working memory influence the programming and execution of a cued reach and grasp response.

Assessing the Impacts of Violating the 180 Degree Rule

George Kachkovski, Chris N.H. Street, Daniil Vasilyev, Michael Kuk, & Alan Kingstone

Many filmmakers abide by a widely used rule of thumb called the 180 degree rule. It states that after an axis is established between 2 characters in a scene, the camera must stay on one side of the axis. Violating this rule allegedly leads to distraction and spatial confusion amongst viewers. The present study assesses whether violations of the 180 degree rule truly detract viewers from the movie watching experience.

Repeated Search in Partitioned Spaces

Grayden Solman

Real world search environments are typically partitioned into many different areas – buildings, rooms, furniture, and so on. The role these partitions play during visual search is unclear. Participants searched through repeated displays that were either partitioned or open, using a restricted mouse-contingent viewing window, and subsequently performed an explicit memory task for target positions. We examine response speed, search
trajectories, and memory, showing how partitions facilitate search.

Relating Language Comprehension and Motor Actions

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

Embodied accounts of language processing propose that comprehension relies on mental simulation of motor activity corresponding to sentence content. Evidence taken in favour of this relationship, however, includes reading-time benefits of both compatibility and incompatibility between ongoing motor action and sentence meaning. We will present results that reconcile the contradictory nature of past research while also providing a non-embodied interpretation.

Paper Session 2

Non Probative Photos and the Backfire Effect

Andrew Huebert, Eryn Newman, & Daniel Bernstein

Seeing trivia statements with related photos increases belief in the statements, even when one sees the statements again later without photos. We examined whether the effect of photos occurs when one learns initially that the statements are true or false. We found that photos did not increase believability but instead helped subjects remember whether statements were true or false.

The (In)credibles: Perceptions of Memory Reports for Repeated Events
Camille C. Weinsheimer, Deborah A. Connolly & Carla MacLean

How adults recall instances of repeated events and how credible their reports are perceived have important real-world applications (e.g., criminal justice and refugee/asylum law). Undergraduates experienced repeated or unique events and were asked to recall a target session. Memory reports were video recorded and shown to new participants who evaluated the credibility of the speakers. Overall, repeated-event reports were seen as less credible than unique events, despite being equally accurate.

Mechanisms Underlying Feedback-Based Reduction of Framing Bias
Cristina G. Wilson, Paul M. Whitney & John Hinson
Feedback can improve decisions by reducing vulnerability to pre-existing biases. It is typically assumed that feedback is effective when it improves the accuracy of internal representations of choice outcomes. However, accurate representations of choice outcomes are necessary but not sufficient for improving decisions. Using a gambling task, we tested how choice representations and affective choice-outcome expectancies contribute to the reduction of framing bias through feedback.

Predictive Value of PTC Test Weakened with use of Diverse, Description-Matched Mini-Lineups
Mario J. Baldassari, Justin D. Kantner, & D. Stephen Lindsay
In four previous samples, we found that participants' individual differences in proclivity to choose (PTC) on a series of mini-lineups were predictive of individual differences in PTC on a set of full sized lineups. Two new samples with description-matched mini-lineups and a more diverse set of faces have shown a much weaker relationship in PTC with the same set of full sized lineups. Reasons for this weakening will be explored.

Poster Session 1

1 ~~**Culture Influences Executive Functioning and Prospective Memory**~~ **Withdrawn**
Julie Chang & Peter Graf
We investigated the cultural influences of individualism and collectivism on prospective memory and how it is mediated/moderated by executive functioning. We administered prospective memory and D-KEFS tasks and measured participants' adherence to collectivistic and individualistic cultures. Performance differences may be explained by the cognitive strategies and categorization styles employed by participants who adopted either an analytical or holistic cognitive framework as well as the cognitive advantages afforded by certain cultural practices.

2 **Cross-Cultural Episodic Prospective Memory and Executive Functions**
Alice Lee, Travis E. Baker, Mario Liotti, & Genevieve Fuji-Johnson
This study tests for differences in executive functions and episodic prospective memory performance between individuals from differentcultures. Participants from collectivistic and individualistic cultures were tested with subtests from the Delis-Kaplan Executive Function System (D-KEFS) for examining their cognitive skills. Episodic prospective memory performance was measured by two other tasks: video condition and task condition. We hypothesize a relationship between executive functions and episodic prospective memory, as well as differences in these abilities between cultures.

3 Influence of Cannabis Use on Age-Related Declines in Executive Functioning

Marcella Teixeira-Marques, Mackenzie Allison, Alexander Spradlin, & Carrie Cuttler

We examined the influence of cannabis use on age-related declines in executive functioning (EF). 46 daily cannabis users (age range 18-61, M=28.91) and 23 non-users (age range 18-74, M=32.83) completed a battery of neuropsychological tests including several EF tests. The results revealed significant negative correlations between age and EF in the non-users but not the users. Either cannabis protects against age-related declines in EF or our users were too young.

4 Adverse Childhood Experiences and Executive Functioning

Rachel Maja, Justin Karr, & Mauricio Garcia-Barrera

Research supports that exposure to adverse childhood experiences (ACE), and PTSD is associated with impairments in executive functions. The current study explored these associations in addition of assessing whether PTSD symptoms mediate the association between ACE and executive functions. The results indicated negative Pearson correlations between ACE and executive functions, as well as PTSD symptoms and executive functions. Furthermore, a significant indirect effect indicated that PTSD symptoms mediated the association.

5 The Flexible Nature of Cognitive Control

Darian Sidebottom & Cristina Wilson

Recent theory posits two modes of cognitive control: proactive, requiring sustained attention to resolve response conflict in advance of a decision, and reactive, involving retrieval of information to resolve response conflict immediately prior to a decision. Cognitive flexibility requires deploying different control modes as required by the situation. This study examined two techniques designed to move individuals between
control modes. Results show that rewards for speeded responses increased proactive control.

6 Stealing Memories: The Egocentric Source Monitoring Bias Following Collaborative Remembering

Alia Wulff, Norma Garcia, Emma Hutchison, Madeline C. Jalbert, & Ira E. Hyman Jr.

Following collaborative remembering, people may display an egocentric source monitoring bias. We replicated this pattern while varying overall source monitoring accuracy. Dyads individually studied pictures of household scenes containing several items, some common to both individuals and some unique to each individual. Dyads then performed collaborative recall. Participants demonstrated an egocentric bias in a later source monitoring test. An ego-centric bias may be a basic response following collaborative remembering.

7 A Point to Remember: Pointing Improves Memory and Social Exclusion Hinders it

Fouziah Khairati, Oren Princz-Lebel, Sophie Lanthier, & Alan Kingstone

Participants tested in pairs remember words best when they are spoken by an experimenter who points at them. Word recognition is also worse than baseline when the experimenter points at the other participant. Our findings demonstrate that pointing generates memory effects similar to those elicited by eye gaze in previous work.

8 Making Your Point: Referential Cues Improve Verbal Memory In Men

Oren Princz-Lebel, Fouziah Khairati , Sophie Lanthier, & Alan Kingstone

Previous research suggests that females benefit in word memory for items presented with eye contact. We explored whether this finding extends to other referential cues (i.e. pointing), or is specific to eye gaze. When joined with the words being read, male participants demonstrated better recognition and verbal memory when the referential cue was provided. This suggests that the gender specific benefit of eye gaze may be unique to gaze cues.

9 ~~Individual Differences in Recognition Memory~~ Withdrawn

Damian Page & D. Stephen Lindsay

Research by Kantner and Lindsay (2014) suggests response bias is a stable cognitive trait. In the present study we examined potential correlations between measures of need for cognition (NFC), openness to experience (OTE) and performance easures on a study/test cycle recognition memory task. A tendency towards significance between measures of sensitivity and NFC, as well as a significant correlation between our measures of OTE and NFC was observed.

10 Working Memory Capacity and Theory of Mind

David Crumley & Lesley Jessiman

Maehara and Saito (2011) show that working memory distractor tasks interfere with our ability to make theory of mind based probability judgements. The hypothesized reason is failure of episodic control in working memory. Minamoto and colleagues (2015) show evidence that episodic control is positively correlated with working memory capacity. My research seeks to expose a correlation between working memory capacity and error rates in theory of mind based probability judgements.

11 Does Exercise Improve Prospective Memory?

Emily LaFrance & Carrie Cuttler

This study focused on the effect of cardiovascular and resistance exercise on prospective memory. Participants were assigned prospective memory tasks and completed the initial learning stages of retrospective memory tests prior to exercising or sitting. Participants were expected to execute the prospective memory tasks after exercising (during the delayed recall portions of the retrospective memory tests). The results revealed no significant effect of exercise on prospective or retrospective memory

12 The Effect of Subvocal Rehearsal Disruption on Young Children's Prospective Memory

Hannah Mohun, Caitlin E.V. Mahy, Ulrich Mueller, & Louis J. Moses

Our study examined the impact of a verbal interference manipulation on preschoolers' prospective memory. The results revealed that 4-year olds had worse prospective memory than 5-year olds, and that children in the verbal interference condition performed worse on the prospective memory task than children in the standard condition, suggesting that children were using subvocal rehearsal to refresh the prospective memory intention in the standard condition.

13 The Production Effect: Beyond Verbatim Memory

Nicholas Toews & Andrea Hughes

The production effect is the memory benefit of speaking words aloud compared to reading them silently. The purpose of the current study was to determine whether or not the production effect extends to gist memory. Participants read an article and spoke half the paragraphs aloud and read other half silently. The test that followed assessed gist memory with a short answer test. Memory was significantly higher for paragraphs read aloud.

14 The NAP Effect: Distractor Inhibition or Episodic Retrieval?

Sylvie Couture-Nowak, Regard Booy, & Dr. Mario Liotti

It is unclear whether the Negative Affective Priming (NAP) effect is due to the inhibition of a previous distractor or memory trace retrieval of the prime. The present study compared response times to positive, negative, or neutral words with either 250ms or 2500ms intervals between prime and probe presentation. The results support a distractor inhibition account of the NAP effect which is incongruent with more traditional negative priming studies.

15 Sleep and Memory

Arifa Hafeez & Levante Orban

Past studies have shown that, under certain conditions, sleep deprivation has detrimental effects on various cognitive domains, including attention, vigilance and working memory. Despite overwhelming evidence that sleep enhances memory, little research has been done to understand the effect of sleep on false memories. This study tested whether sleep deprivation can cause proneness to misinformation effect and affect memory. The result of $t(31) = 3.048$, $p \leq 0.05$ indicate a positive correlation between sleep and memory performance.

16 "Lie to Me, Lie to Yourself? Dark Triad Traits, Dishonesty and False Memory"

Max Draymon & Nicole Vittoz

The Dark Triad Traits (DTT: Psychopathy, Machiavellianism, Narcissism) are clearly linked to deceptive, manipulative behaviour, yet little is known about whether people with high levels of DTTs deceive themselves in order to convince others. This online study investigated whether the DTTs predicted false memory levels as assessed by the DRM paradigm. Our findings indicate that psychopathy is associated with lower likelihood of self-deception, while Machiavellianism shows the opposite pattern.

17 Electronic Cognitive Interview

Tahir Chatur, D Stephen Lindsay, & Mario Baldassari

The Self-Administered interview has been used to supplement an eyewitness testimony by organizing details, and increasing retention rates for future interviews. The SAI continues to reduce the workload of police officers, and is implemented in police forces throughout the U.K. However, users describe the paper-booklet process as cognitively demanding. Currently our research team at UVIC has been working on an electronic self-administered interview. The current version will boast an easy to use online interface, with a step-by-step guided process.

18 Implicit Memory Associations in Gambling: Pilot Study Results

Gillian Russell, Robert Williams, & John Vokey

Implicit measures are thought to assess processes unavailable to introspection, and are less sensitive to self-justification and social desirability than are traditional explicit assessments. Compared with the abundance of research on implicit cognitions and substance use, there is very little known about the role of these cognitions in gambling. This pilot study evaluates two measures of implicit memory associations using word and behaviour associates for ambiguous gambling-related cues.

19 "Highlighting" The Importance of Classroom Lectures

Faith Jabs, Trish Varao-Sousa, Thariq Badiudeen, Jonathan Fawcett, & Alan Kingstone

Participants watched an online lecture while pressing a spacebar to indicate the occurrence of information they considered important. Although individual variation emerged in the ability to detect the items the instructor thought important, memory was consistently better for information highlighted as important. We discuss the pedagogical and learning implications of these data both with regard to the delivery and assessment of classroom information.

20 Attentional Blink While Driving: A Simulator Study

Bertrand Sager, Aaron Richardson, Carley Wood, & Thomas Spalek

The Attentional Blink (AB) is the observance of a decrement in performance on the second of two sequential targets when it follows soon after the first. The present work examines whether the AB can be observed within the everyday context of driving. Consistent with prior AB work, we show that participants were slower to react to an emergency braking event when it followed soon after a different target event.

21 ~~Metacognitive Awareness in Children with Attention Difficulties~~ Withdrawn

Sarah Pyne, Kimberly Kerns, Jenny MacSween, & Sarah Macoun

Metacognition is the ability to use knowledge about our current cognitive processes in order to change our future behaviour. Using a pre-post design, the present study evaluated the efficacy of a six-week cognitive intervention on increasing metacognition in children with attention difficulties. Preliminary results show that scores on the Metacognitive Awareness Inventory improved after participation in the intervention.

22 Real and Implied Presence: Effects of Social Presence on Attention and Choice

Allison Drody, Eleni Nasiopoulos, Joandrea Hoegg, & Alan Kingstone

We investigated differences in product choice and visual attention in response to social presence. Participants completed a task in which they chose between different products in a real, implied, or no presence condition. An SMI eye tracker monitored fixations and choice responses were collected. Results suggest that the nature of the social presence influenced both product choice and looking behaviour.

23 Rapid Learning of a Novel Language: An Electroencephalographic Investigation
Talise N Lindenbach, Chad C. Williams, & Olave E. Krigolson
As learning a second language becomes more important in an increasingly multilingual society, neural processes by which humans learn a language has gained considerable interest. To demonstrate the rapid effects of learning on prediction error signals, participants were to classify unfamiliar symbols as distinct words while electroencephalographic data were being recorded. We found that the reward positivity scaled to learning in that it quickly diminished over the first few trials.

24 Rapid Category Learning of Warbler Species with Mixed and Blocked Conditions
Marlene Karl, Katie Morrish, Alison Campbell, & Jim Tanaka
To categorize perceived stimuli we have to build a mental representation through exposure to variability. We introduced the Rapid Category Learning paradigm to participants in two experimental groups that were presented with images of birds before completing a same-different test. By grouping those images together participants had a significantly better ability to tell apart categories. Further studies are needed to explore the mechanisms of rapid category learning and its application.

25 Improving Artist Differentiation Using Rapid Category Learning
Cora-Lynn Bell, Taryn Berman, Jamie Kemp, Rebecca Louw, Alison Campbell, & James Tanaka
We examined rapid category learning (RCL) of visual stimuli in a blocked versus mixed presentation of post-impressionist and abstract expressionist art pieces. Four post-impressionist and 4 abstract expressionist artists were used. Each participant passively viewed 20 exemplars of each artist in both the blocked and mixed condition, and subsequently performed a same-different task. Participants performed better in the blocked condition, indicating superiority of blocked presentation for the formation of visual categories.

26 The Mechanism for the Effect of Complexity in Artificial Grammar Learning
Lauren Vomberg & John Vokey
Discrimination of novel artificial grammatical strings from nongrammatical strings improves following training with exclusively simple grammatical strings. This effect is attributed to assumptions that complex grammars are harder to learn. We explore the possibility that test strings from complex grammars are less well represented in training strings than test strings from simple grammars. Results suggest the degree of grammatical coverage explains the effect, not the complexity of the grammars.

27 Away From Keyboard: Involuntary Video Game Thoughts
Victoria S. K. Au & Kyle Alan Manske
We examined the frequency and intrusiveness of thoughts and behaviors resulting from playing video games. Individuals described their gaming habits, their video game-relevant thoughts experienced in real-life contexts, and responded to a version of the Post-Traumatic Checklist reworded to focus on video game thoughts. Many reported having automatic thoughts, dreams, and impulses about video games, and some reported PTSD-like symptoms such as having unwanted, repeated intrusive thoughts.

28 Event-Related Potentials Reveal Distinct Spatiotemporal Dynamics of Stereotype Processing Between Conservatives and Liberals

Adam K. Baker, Susanna Piasecki, Brendan Torok, Travis E. Baker, & Mario Liotti

Recent research has begun to utilize event-related potentials (ERPs) to investigate stereotyping. Here, we continue this work by using event-related brain potentials (ERPs) and behavioral assays of gender stereotyping, together with questionnaires about political ideology, to examine the cognitive mechanisms of gender stereotype processing between liberals and conservatives. Our investigation revealed electrophysiological and behavior differences between liberals and conservatives, as revealed by the N400 ERP, reaction times and overall accuracy.

29 Early Emergence of Gender Stereotypes About Math and School in Childhood

Julie H.J. Oh, Antonya M. Gonzalez, & Andrew S. Baron

The present study sought to investigate how academic gender stereotypes develop and influence children's academic pursuits. We conducted a study with a sample of 161 children ages 5-8 that examined the relationship between implicit and explicit gender stereotypes about math and school and children's academic performance. We found that girls who associated their own gender less with math performed worse on a math task, suggesting that implicit math-gender stereotypes impact girls' math performance as early as age 5.

30 Perceptions of Elder Abuse

Bernadette Yeo & Lesley Jessiman

Misperceptions of elder abuse were examined. Thirty participants identified, rated severity, and noted justification and acceptability of elder abuse. A significant main effect of abuse type ($p = 0.00$) was found, with sexual abuse identified by all participants. Identification and perceived justification of abuse appear to have a social cognitive influence such that sexual abuse – identified as one of the most socially heinous acts – was consistently identified as abuse and as unacceptable. Scenarios depicting "caregiver burden" were consistently misperceived as "justifiable".

31 Reducing Paranormal Beliefs with Education

Carrie A. Leonard & Robert J Williams

Pseudoscientific belief systems have been implicated in the use of unproven alternative medicines (e.g., homeopathic remedies for cancer). Some researchers have attempted to reduce paranormal beliefs – a sub-facet of pseudoscientific beliefs - through educational interventions. These interventions typically focus on increasing knowledge of the scientific process. A systematic review and meta-analysis of the literature was undertaken. The results indicate that topic-specific education does significantly reduce reports of global paranormal beliefs.

32 Social Cognition and Decision-Making Across the Lifespan

Daniel G. Derksen, Eric Mah, Karan Bola, & Daniel M. Bernstein.

We completed year 1 (N = 176; Age Range = 3 to 89 years) of a 4-year longitudinal lifespan study of perspective-taking, executive function, and judgment / decision-making. Few measures correlated with each other. Age predicted performance on most tasks; however, many of these age effects were quadratic— younger children and older adults performed differently from other age groups. Our results illustrate the complex nature of cognition across the lifespan.

33 Failure to Replicate Peak-End Rule in Lifespan Sample

Jordan Procyk, Rachel Van Poele, Daniel Derksen, & Daniel M. Bernstein

People's retrospective evaluations of experiences are based on the peak and end of an experience, instead of the experience as a whole — the peak-end rule. In a small sample (N=21), Do, Rupert, and Wolford (2008) reported that children were happier with a chocolate bar than with a chocolate bar followed by bubble gum. We failed to replicate this in a large lifespan sample (N = 176, Ages = 3-89 years).

34 Attitudes Toward Individuals with Disabilities

Manmeet Chhina & Levante Orban

This study sought to explore whether priming participants with positive imagery of individuals with disabilities would implicitly influence participant attitudes, whereby more favorable responses would be reported on the ATDP-A scale. For this study, 42 participants were recruited using the KPU research pool system. The results were statistically non-significant, $t(40) = .47$, $p > .05$; $d = 0.15$. Future studies could use field experiments to study these implicit social cognition attitudes.

Concurrent Speed Talks Session 1

Room 1001

The Role of Anxiety In Pareidolia and Detection of Camouflaged Animals

Farhad Dastur & Kevin Smith

Anxiety can cause errors in perception and decision-making that may contribute to conspiracy theories. The objective of this study was to build upon previous findings to determine if anxiety results in illusory image detection, a type I error. Participants' perceptual abilities were observed in both a state-anxiety and a control group to measure whether there is a difference in illusory image detection.

Action Representations Evoked by Disembodied Object Handles

Ragav Kumar, Michael E. J. Masson, & Daniel N. Bub

Handle alignment effects found when subjects make reach and grasp actions primed by handled objects have been attributed by some to compatibility between spatial codes rather than to evocation of action representations. These accounts were examined by priming key press and reach and grasp responses with a disembodied object handle. We obtained clear dissociations between the two response modes, indicating a role for motor representations in the handle alignment effect.

You're In My Space: The Structure of Action in Interpersonal Space

Natalie T. W. Wong, Jill A. Dosso, & Alan F. Kingstone

Interpersonal relationships change the neural representation of the space between individuals. What are the consequences for action? We investigated (1) how individuals organized their reaches when facing another, and (2) whether this organization varied according to a relationship prime. While there is no significant effect of relationship context on interpersonal navigation, people navigated the space very systematically. We discuss implications for future methodology and for the study of spatial representation.

An Examination of Gender Differences in the Influence of Cannabis on Memory

Mackenzie Allison, Marcella Teixeira-Marques, & Carrie Cuttler

The effects of chronic cannabis use on memory were examined to determine whether men and women show different effects. A total of 79 participants (46 cannabis users, 23 non-users) were administered tests of prospective memory, verbal retrospective memory, visual retrospective memory, source memory, and temporal order memory. Results showed significant effects of cannabis on field prospective, verbal retrospective, source, and temporal order memory. Few differences were found between the sexes.

Does Corrective Feedback Improve Recognition Accuracy Across Study-Test Cycles

Shaela T. Jalava & Glen E. Bodner

Corrective feedback during an old/new recognition test does not improve recognition accuracy (Kantner & Lindsay, 2010). We tried a forced-choice recognition task, to prevent the feedback from influencing response bias. There was no effect of feedback on an initial study-test cycle, but feedback improved recognition accuracy on a second study-test cycle (involving new items), at least for participants who reported that the feedback was helpful.

Room 1003

Effects of Mood on Cued vs. Uncued Cognitive Flexibility

Amy T. Nusbaum, Paul Whitney, & John M. Hinson

Mood can influence aspects of cognition, but its impact on cognitive flexibility is not well understood. This study examined effects of mood on cognitive flexibility using task switching and probabilistic reversal learning, while also examining the role of event cueing. Positive mood increased cognitive flexibility in all cases. Negative mood increased
flexibility when events were cued but decreased flexibility when events were uncued.

The Valence of Pictures is Influenced by the Context Valence in Which They Occur

Elnaz Bondar, Jyllian Lu (Zhoutian), Anna Maslany, & Peter Graf

Participants rated the valence of pictures displayed either in the context of positively or negatively valence pictures. The results showed that negative target pictures, for example, were rated as more negative when presented in the context of negative compared to neutral or positive pictures.

Heart & Mind: Affect and Cognition in Decision-making

Jacqueline Hart Smith, Peter Graf, Anna Maslany & Natasha Pestonji

Does ‘feeling’ come before ‘knowing’? Zajonc suggests that affective judgments can be made with minimal exposure to stimuli, while cognitive judgments cannot. Participants made either cognitive or affective binary decisions on valenced pictures that were presented at optimal and suboptimal exposures. Results suggested that cognitive decisions were made faster and with higher accuracy than affective decisions, which suggests a more complex explanation of how affect and cognition process stimuli.

Time Goes By So Slowly: The Effect of Affect on Time Estimation

Janel Fergusson, Anna Maslany, & Peter Graf

Does time flow more quickly when we're having fun? Do positive images seem to fly by and negative images linger? Two studies were conducted to investigate the effect of affect on timing. Subjects saw a series of positive, negative, or neutral images while engaged in either a production task (i.e., press the spacebar in 3 minutes) or an estimation task (i.e., how long do you think you looked at pictures for?).

The Bland and Beautiful: Target Pictures Ratings are Affected by Contexts

Jyllian Lu (Zhoutian), Elnaz Bondar, Anna Maslany, & Peter Graf

We investigated how participants rated attractive, neutral and repulsive target pictures displayed in a same or different context valence. Context pictures were made up of five pictures with consistent valence while a single target picture had either the same or a different valence from the context. Results showed that attractive target pictures were rated as more attractive when displayed in an attractive context compared to in a neutral or repulsive context.

Concurrent Speed Talks Session 2

Room 1001

Precrastination

Alexandra Stubblefield, Brian Dyre, Ezana Taddese, Bryan Haflich, & Lisa Fournier

Pre-crastination is the tendency to start or complete tasks as soon as possible, even if this requires more physical effort. We examined whether people pre-crastinate because they implicitly "believe" that by starting the task sooner (completing a subgoal) they are getting closer to their end goal. Results suggest that this is the case, at least when the stimuli relevant to the task are salient.

What is the Optimal Time for Students to be Tested? The Impact of Time of Day on Young Adults' Fluid Intelligence

Angela Giesbrecht, Kyle Prince, & Samantha Lutz

This study hypothesized that young adult KPU students tested in the evening will have greater fluid intelligence test scores compared to participants tested in the morning. The Cambridge Brain Sciences tests were used to assess fluid intelligence in regards to memory, planning, concentration, and reasoning. Results did not show any significant difference between participants' scores. This research has implications for determining the optimal time for students to be tested.

Remembering to Forget: Impaired Memory and Surprise Quizzes

Ayeesha Bhatara, Maryam Osman, Anna Maslany, Natasha Pestonji, & Peter Graf

Our study tested the internal validity of Retrieval Induced Forgetting, which occurs when the active remembering of an item from a category (e.g. cars) inhibits the remembering of other items in the same category that were not recalled. Students completed two tests where the final quiz had new questions not on the practice quiz. The results from our study will provide valuable information about RIF happens in the real world.

Mind Wandering in Lectures: A Study of Students Catching Themselves

Trish Varao-Sousa & Alan Kingstone

When queried students often report mind wandering during lectures, but to date no research has investigated their ability to self-catch mind wandering during lectures. Across three lectures self-caught mind wandering episodes occur on average 8 times, are relatively constant across the lecture and are unaffected by the inclusion of mind wandering probes. The benefits of investigating self-caught mind wandering and the influence of individual difference factors will be discussed.

Gambling-Specific Erroneous Cognitions

Carrie A. Leonard, Robert Williams, & John Vokey

Gambling fallacies, a collection of gambling-specific cognitive errors, are of interest in due to their presumed etiological role in the development of problem gambling. Our large-scale review identified six primary fallacies and 18 instruments designed to measure susceptibility to these fallacies. Identified flaws with the majority of fallacy instruments, such as the inclusion of problem gambling symptomatology, suggest that the role of fallacies in problem gambling development requires re-evaluation.

Room 1003

Familiarity Breeds Contempt: Does The Mere Exposure Effect Hold with Negative Stimuli?

Natasha Pestonji & Peter Graf

The mere exposure effect is the finding that people prefer previously seen stimuli to novel stimuli. The present study examined whether even negative stimuli would be rated more positively after multiple exposures, and the influence of the type of scale (positive/negative) used. Participants rated attractiveness/repulsiveness of positive, neutral and negative pictures displayed once, thrice, or six times. The results highlight the limits of the mere exposure effect.

The Sensitivity of Anterior Cingulated Cortex to Prediction Error at Two Levels of Hierarchy

Danesh Shahnazian & Clay Holroyd

Reward positivity (Rew-P) is an ERP component that is said to originate in the Anterior Cingulate Cortex (ACC) and to be sensitive to reward prediction errors (RPE). To examine whether this signal can be utilized for learning at different levels of hierachy, we recorded EEG from subjects engaged in a casino gambling task. Results support the possibility that Rew-P is sensitive to RPE at different levels of hierarchy

Eyewitness Confidence: Post-Identification Feedback Affects Both Verbal and Numerical Expressions

Jillian Kenchel & Daniel Reisberg

Around the country, police are shifting toward collecting eyewitness confidence “in your own words” rather than in numbers, but little is known about this mode of expressing confidence. Prior research has demonstrated that post-identification feedback significantly inflates confidence in numerical expressions; the current study asks whether post-identification feedback has the same effect on verbal expressions of confidence. Results show that verbal expressions are susceptible to the feedback effect.

The Diversity of Motor Sequencing In Skilled Video Game Performance

Joe J. Thompson, C.M. McColeman, Mark R. Blair, & Andrew J. Henrey

We examine variability in motor sequencing among 2,510 StarCraft players from eight levels of skill in an annotated dataset of actual performance. We counted the unique length 2, 3, and 4 sequences occurring in 400 actions game actions and compared this value to the sequence counts one would expect given the random sampling of that player's collection of actions. We find that the sequences of skilled players are more random.

Humans' Willingness to Cooperate with a Computer Partner Depends On Feedback About the Team's Performance

Basil Wahn, Sonia Milani, Peter König, & Alan Kingstone

Are humans willing to collaborate with a computer? In a collaborative multiple object tracking task, we investigated how information about the actions of a computer partner and feedback about the team's performance affect participants' willingness to cooperate with a computer. We found that participants were more likely to cooperate with a computer when they additionally received feedback about the team's performance than when only receiving information about the computer's actions

People with Autism: Lineup Identification and Facial Recognition Memory

Patrick Dwyer, Mario Baldassari, & D. Stephen Lindsay

The study investigated the performance of typically-developing (TD) people and people with Autism Spectrum Disorder (ASD) on lineup identification and facial recognition tasks. It also measured social competence, which was correlated with performance on the facial recognition and lineup identification tasks. The difference in performance between ASD and TD participants was significant, but there was substantial overlap between groups, suggesting that people with ASD can provide reliable eyewitness testimony.

Poster Session 2

1 Prevalence Effects in Motorcycle Conspicuity: A Change-Blindness Study

Bertrand Sager, Elisabeth Kreykenbohm, Brie Wish, & Thomas M. Spalek

Previous change-blindness work has shown that motorcycles are not less conspicuous than cars when presented within a traffic context. The current work also used a change-blindness paradigm to examine how in-display motorcycle prevalence, and how frequently motorcycles were the target across trials, affects sensitivity to changes involving a motorcycle. Consistent with our previous work motorcycle sensitivity was high regardless of whether, or the manner in which, prevalence was manipulated

2 Semantic Influence on Attention: Evidence From a Change Detection Task

Miao Tang, Qiwan Shi, & Richard D. Wright

We used a flicker task to study the influence of semantics on detecting changes to logographic characters. Mandarin readers were more sensitive than non-Mandarin readers to changing information when all characters were Mandarin. But when only one of the characters was Mandarin and the rest were pseudo-characters, Mandarin readers had no advantage … except when the change occurred with the Mandarin character. Our findings suggest that semantics influence attention.

3 How Are Covert Attention and Learning Related?

David McIntyre, Scott Harrison, & Huan Wang

Previous research monitoring the allocation of visual attention over the course of learning has suggested that learned covert attention plays a role in overall task efficiency. The proportion of trials where human test subjects do not appear to look at enough of the test stimulus to answer correctly, and yet succeed, tends to increase. Here we characterize the individual and task differences that contribute to this effect.

4 Evidence for Attentional Momentum

Elisabeth Kreykenbohm, Bertrand Sager, Caitlyn McColeman, & Thomas M Spalek

Inhibition of Return (IOR) is the finding of slower responses to targets at previously cued than uncued locations. Snyder, Schmidt, and Kingstone (2001) suggested that OFE, which is central to the Attentional Momentum explanation of IOR, was unreliable and might be a consequence of eye movements. Results of three experiments refute the suggestion that OFE is unreliable, and that it is restricted only to situations where eye movements are involved.

5 Investigating Goal Switching and Single Representations of Target Stimuli in Attentional Blink (AB)

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

Processing of a second target (T2) is impaired when following a first target (T1) by 200-500ms. This is the Attentional Blink (AB). Goal switching as a potential mediator has been proposed, and it has been suggested that setting one goal (summing digits) versus two (reporting separately) shows an attenuated AB (Ferlazzo et al., 2007). We investigate these claims and provide evidence against this theory.

6 T1-Related ERP Activity Throughout the Attentional Blink

Hayley E. P. Lagroix, Kevin M.D. Boyd, Nadja Jankovic, Aaron A.N. Richardson, Vincent Di Lollo, & Thomas M. Spalek

We examined T1-related ERPs throughout the attentional blink (AB). T1 and T2 stimuli each consisted of a target and a distractor presented either vertically or horizontally. A pronounced activity lateralized to the T1 location was recorded upon the onset of T2. This unanticipated result suggests that the location of T1 is maintained throughout the period of the AB, even though that information is irrelevant to performance of the T1 task.

7 Are Infant Faces Attentionally Prioritized Regardless of Race?

Sarah Martinez, Kelly Jantzen, & McNeel Jantzen

Infant faces of one's own race are biologically important stimuli that automatically attract attention. Whether infant faces of a different race are equally attended to is debatable. We used a Posner cueing task to evaluate whether infant faces, regardless of race, were attentionally prioritized over adult same/other race faces. This replication of previous opposed findings is important for understanding how age and appearance
modulates racial biases in attention and memory.

8 Influences of Affect and Motivational Intensity on Attention

Emilie J. Ptak, Anna Maslany, & Peter Graf

Valence is the attractiveness or aversiveness of a stimulus, which can be positive, neutral or negative. One theory suggests positive affect broadens attention and negative affect narrows attention. The purpose of our study is to test this prediction. In each trial, participants ranked the valence of pictures and completed a Navon letter task to measure attentional breadth. The results were not consistent with the theory and implications will be discussed.

9 Beneficial Effects of Mood States on Cognition

Haley Delgado, Sydney Wirkkala, & Amy Nusbaum

Research has often shown beneficial effects of positive mood and detrimental effects of negative mood on cognition. However, there are mixed findings on the impact of mood on cognitive flexibility, i.e., the ability to adapt to changing circumstances. We manipulated mood and examine task switching, one element of cognitive flexibility. Both positive and negative mood increased cognitive flexibility in task switching, indicating that negative mood is not always detrimental.

10 The Effects of Blushing on the Judgement of Others

Jordan Procyk & Levente L. Orbán

The effects of blushing and gender on judgements were tested in relation to a social transgression, as prior research suggests favorable treatment of blushing faces. Participants (N=52) viewed a photo paired with a transgression and rated their general impression of the person and seriousness of the incident. Participants judged the incident as more serious in the blushing condition, contrary to previous studies. No other significant effects were found.

11 Perception and Production of Facial Expressions by Children with Autism

Jasmine Yadeta, Patrick Dwyer, Buyun Xu, & James W. Tanaka

Previous studies have separately identified deficits in the production and perception of facial expressions in individuals with Autism Spectrum Disorder (ASD). In the present study, children with ASD and typically-developing (TD) children completed a facial expression perception task with dynamic images. Then filmed while producing facial expressions. Naïve raters assessed the quality of expression in the videos. Significant differences between ASD and TD participants were found in facial expression perception and production.

12 Subjective Experiences of Eye Contact in Individuals with Autism Spectrum Disorder

Cathy Lin, Marleis Bowering, Dominic Trevisan, Nicole Roberts, & Elina Birmingham

Several theories attempt to explain why individuals with Autism Spectrum Disorder (ASD) are reluctant to engage in eye contact during social interaction. The purpose of this study was to understand how high-functioning adults and teenagers with ASD experience eye contact in their daily lives. We used a phenomenological approach to analyze high quality autobiographical accounts of teenagers and adults with ASD describing their lived experiences with eye contact.

13 Face Perception, Evaluation, and Spatial Frequency Information

Ashtin Halmrast & Javid Sadr

Fluency of processing is a rather deep account put forward to explain a range of high-level perceptual and cognitive phenomena -- such as decision-making familiarity, subjective preference, etc -- and their relation to both stimulus properties and perceptual/cognitive experience. Here we explore the topic of processing fluency in perceptual judgments by examining the somewhat counterintuitive relationship between low-level image properties underlying stimulus quality / information-content and high-level subjective perceptual preference.

14 Exploring the Gaze Strategies of Expert Object Recognition Using Eye-Tracking.

Michael Chin, Simen Hagen, & Jim Tanaka

Perceptual experts recognize their respective objects at more subordinate levels compared to novices. We examined the perceptual strategies of bird experts using eye-tracking. Experts and novices discriminated bird species in three conditions: full-view, gaze-contingent window, and gaze-contingent mask. Bird experts and novices had similar eye-movement patterns; however, the gaze-contingent mask interfered less with experts performance than with novices. Thus, experts encode information over a wider
spatial extent than do novices.

15 Lifestyle and Cognition: The Relationship Between Sleep, Exercise, and Exam Performance

Simon Ho, Kyle Gooderham, & Todd C. Handy

Many studies have shown a relationship between physical activity (PA) and cognitive performance. The present study aims to explore this relationship in a natural setting. A questionnaire, asking about recent amounts of PA and sleep, was administered to students immediately after completion of a final examination. Findings suggest that these lifestyle choices can benefit real world cognition, as both PA and sleep were
predictive of exam performance.

16 Egocentrism and Exercise Motivation

Samuel Burden, & Lesley Jessiman

The imaginary audience is the adolescent-specific belief that others are preoccupied with their appearance and behaviours, and the personal fable is the belief that they are unique, and omnipotent. My study examined whether these types of egocentrism disappear after adolescence and whether higher egocentrism scores would increase motivation to exercise. Personal fable scores were significantly associated with exercise motivation and there were no significant differences in egocentrism scores between adolescents and young adults.

17 Towards a Neurophysiological Assessment of Fatigue: The P300.

Shannon Fitzpatrick, Harvey Howse, Allison Walzak, Bruce Wright, & Olav Krigolson

An objective measure of fatigue is needed, especially as it can lead to increased accidents in the workplace. In the current study, we found correlations between the P300 component and subjective ratings of fatigue and sleepiness. This indicated an effect of fatigue and sleepiness when updating one's internal model. Importantly, this study demonstrated a first step towards having objective measures of fatigue.

18 The Impact of Cell Phone Removal on Experiences of Anxiety and Loneliness

Hailey Davenport & Lesley Jessiman

The current study was an adaptation of Cheever et al's (2014) study, which found removal of university student's cells phones increased levels of anxiety. My study proposed that cell phone removal would increase anxiety as well as feelings of loneliness, especially for the most dependent users. Anxiety and loneliness scores did increase over time for the participants whose cell phones were removed and decreased for those with their phone.

19 Reducing Risky Decision Making Bias in Trait Anxious Individuals

David Saldivar, Salman Ibrahim, & Cristina Wilson

Trait anxiety is associated with vulnerability to decision bias, resulting in unfavorable outcomes. This study examined how differences in trait anxiety affect the use of decision feedback. We employed a gambling task that required use of decision feedback to decrease disadvantageous choices caused by framing bias. Results showed that people high in trait anxiety were initially more susceptible to framing bias, but ultimately improved decisions based on outcome feedback.

20 Throwing Good Money After Bad: Sunk-Cost Fallacy Across the Lifespan

Corey Callies, Michelle C. Hunsche, & Daniel M. Bernstein

Prior investment in a lost cause makes people invest further in that cause – the sunk-cost fallacy (SCF). Higher cognitive capacity relates to greater susceptibility to the SCF. Taking age as a proxy for cognitive capacity, we found that age (N=174; Range=3-91 years) correlated marginally with the SCF, partially supporting the link between age and the SCF. Larger and equal sample sizes across age groups are needed.

21 Same Beholder, Different Beauty: Preference Reversals for Pairs of Paintings

Katrina H. McDougall, Glen E. Bodner, & David M. Sidhu

We presented pairs of beauty-matched abstract or representational paintings in two blocks of trials, and asked participants to choose the painting they felt was more beautiful. Preference reversals were surprisingly frequent, and were more likely for pairs with low initial relative preference ratings, when the lag between choices was longer, and when participants misremembered which painting they initially chose. The eyes of beholders of beauty commonly and predictably cross.

22 On The Detection Of Colour Changes

Qiwan Shi, Miao Tang, & Richard D. Wright

We used a flicker task to examine the detectability of changes in the colours of objects. In one experiment, the colours of targets either changed position or were replaced by new colours. We also studied the effect of using a static target item surrounded by items with colours that changed position or were replaced by new colours. The results suggest that how colours change affects target noticeability.

23 Instances of Mental Contamination and Detection of Violated Norms

Spencer Justice & Wayne Podrouzek

The aims of the present study are to determine conditions under which mental contamination can be produced, specifically in situations where a participant witnesses a violation of a social norm. Participants recruited from the entry-level psychology participant pool will be tested on levels of MC before and after witnessing the aforementioned violation via video, and asked as well to determine who was at fault in the various scenarios

24 /T/ɑ /D/ɑ! Fun With Phonemes: Musicianship And The Perception Of Voice Onset Time

Raleigh M. Davis, Sydney V. Kamm, Paul A. Rhoads, Anne Huntemer-Silveira, Pavithra A. Thomas, Nicolas R. Brown, Kaylee M. Munizich, K.J. Jantzen, & McNeel G. Jantzen

Musical training enhances perception of temporal speech cues (Jantzen et. al. 2014). The current experiment compared string, wind, and nonmusicians using speech stimuli varying in onset time within a four task dichotic listening paradigm. Significant differences were observed for nonmusicians in the left ear task and for all groups in the right ear and T sound tasks. These results are supported by hemispheric specialization of music and perceptual magnet effects.

25 What's Behind the Shower Curtain?: Intrusive Thoughts and Responses Concerning Horror Movies

Alia Wulff & Ira E. Hyman Jr.

People often experience involuntary and intrusive thoughts after watching horror movies. Participants responded to a survey about their responses to horror films, which included the PTSD Checklist, Impact of Events Scale, and a scale measuring frequency of behavioral manifestations related to horror movies. The measures correlated with amount of fear experienced during the movie. Responses to horror films include intrusive thoughts often theorized to be limited to traumatic memories.

26 The Effects of Background Alpha on Baseball Performance

Anthony Pluta, Olav Krigolson, & Chad Williams

Is it possible to know who will be the best batters on a baseball team for each game? To determine whether neural activation can be a predictor of batting performance, we used a portable electroencephalography data collection system to monitor a player's background alpha activity prior to practice. Our results indicated a positive correlation between alpha activity and batting averages.

27 Switching Between Using and Lifting an Object: Are There Switch Costs and if so, What do They Tell Us About Motor Programming?

Hannah Van Mook, Michael E. J. Masson, & Daniel N. Bub

Previous work on task-switching using natural objects shows reliable switch-costs. We further examine the nature of these switch-costs in a novel procedural method using switches between "use" and "lift" grasp actions with three kinds of objects (cellphone, spray-can, and pencil). Unlike previous studies, we found no asymmetry between using and lifting actions. Forms of cuing include imperative sentences or depicted actions. Implications for theories of motor control are discussed.

28 Hierarchical Feedback in a Motor Task

Nathan Chen-Mack, Francisco L. Colino, & Olave E. Krigolson

There is a hierarchical task error processing in which event related potential (ERP) components, such as reward positivity and P300, reflect low or high-level errors. In this study, participants performed a complex motor tracking task measuring reward positivity and P300 in response to "successful" or "unsuccessful" feedback. Our results showed that errors in the motor task elicit a dissociation between "successful" and "unsuccessful" trials reflected by the P300 waveform.

29 Validation of the Muse Headband as a Portable EEG System

Rose J. Leishman, Ashley Howse, Alison Walzak, Bruce Wright, & Olave Krigolson

The purpose of this study was to validate the Muse headband as a portable electroencephalography (EEG) data collection system. We used the Muse to collect EEG data while participants performed a gambling task and an oddball task. We examined the data for the presence of event-related potential components commonly seen in these paradigms. Similar components were present in the data, suggesting the Muse may be a valid portable EEG system.

30 On the Nature of Informed Consent

Mohit Bassi, Karissa Wall, Andrea Hughes, & Michelle Riedlinger

Lots of research in psychology is conducted using introductory students as participants. We asked the question: how likely is the average first-year student to read and comprehend what they are consenting to when participating in studies? Participants read an informed consent form either aloud or silently. On a recognition test, participants in the read aloud group had significantly higher retention. These results have implications for how researchers obtain informed consent.

31 Rapid Category Learning of Faces Under Mixed and Blocked Viewing Conditions

Amie Kim, Shikha Khurana, Dr. James Tanaka, Alison Campbell

Psychological studies of facial recognition are largely based upon studies of photo recognition. These studies often oversimplify within-person variability (Jenkins, White, Van Monfort & Burton, 2011). Taking within-person variability into account, we used Rapid Category Learning (RCL) paradigm, a term to refer the process of rapid category formation from previous instances. We are interested to examine whether we can increase participants' ability to recognize four different unfamiliar Dutch celebrities by manipulating the method images are presented.

Saturday, May 14th, 2016

Keynote Speaker

Dr. Heather Price, University of Regina

The Justice of Memory Evidence

Memory evidence permeates the justice system. Despite decades of research designed to facilitate the reliable provision of such evidence, substantive gaps remain, many of which are a result of the field's comfort with existing paradigms. Dr. Price will discuss developments in the study of memory as evidence in the justice system and the growing movement towards questioning how we know what we know about the application of memory research to the law.

Paper Session 3

Adults' Memory for an Instance of a Repeated Event: The Influence of a Direct Connection Between Deviation and Context

Chelsey M. Lee, Dayna M. Woiwod, Patricia I. Coburn, & Deborah A. Connolly

This research examined memory for repeated events, specifically looking at whether an unexpected change (i.e., deviation) during an instance and linking the critical details to the deviation could facilitate participants' ability to accurately recall details from each instance of the event. Results show that participants are more accurate and confident for the first instance and linking the details may increase accuracy for the first and deviation instances.

Perspective-Taking is Unrelated to Hindsight Bias

Megan E. Giroux, Deborah A. Connolly, & Daniel M. Bernstein

Participants read a vignette from a first- or third-person perspective, predicted the likelihood of several outcomes, and later learned a positive, negative, or no outcome before recalling their original predictions. Perspective did not affect memory (no hindsight bias); however, participants who learned negative outcome information misremembered their initial prediction as closer to the actual outcome (hindsight bias). Taking another's perspective may not make an outcome seem more or less predictable.

Suggestibility for Misinformation in Scenes: How General Are Protective Effects of Testing?

Rosemary S. Pereverseff & Glen E. Bodner

After viewing a set of household scenes, taking an initial recall test reduces suggestibility to misinformation about the items in the scenes introduced by a social source. Here, we report that a protective effect of testing also occurs when misinformation is provided in narratives or cued recall questions. However, initial testing reduced the misinformation effect only on a final source memory test, and not on a final free recall test.

Cortical Oscillations Underlying Working Memory for Ordered Groups

Tzu-Han Cheng, Jennifer C. Whitman, & Rebecca M. Todd

Using EEG, we examined a model of working memory in which fast oscillations correspond to individual items, and slower oscillations maintain serial order information. We manipulated whether 6 items were organized into 3 vs. 2 sub-groups. We found a shift by a factor of 2:3 in the frequencies showing high phase-locking between frontal and parietal sites. These
oscillations likely corresponded to the 2 vs. 3 individual items in each sub-group.

Paper Session 4

It's Complicated: The Relationship Between Affect and the Scope of Attention

Anna Maslany & Peter Graf

How we attend to a stimulus depends on valence-- its attractivenesss/repulsiveness. One theory suggests that scope of attention broadens in response to attractive stimuli and narrows in response to repulsive stimuli. Student's saw picture sequences of the same valence and after the scope of attention was assessed with an Erikson flanker task or a
Navon task. The relationship between valence and attentional scope differed depending on the type of task.

Turn That Frown Upside Down, or Into Any Shape You Want

Lia Kendall, Quentin Raffaelli, Alan Kingstone, & Rebecca M. Todd

We investigated whether iconic faces with familiar facial features conveyed a processing advantage compared to faces that do not. Participants classified expressions on icons that had familiar features and icons with unfamiliar features (e.g., :) vs. :F), while undergoing EEG. Halfway through the experiment, participants has emotions assigned to the unfamiliar faces.
We found a shift in processing of unfamiliar faces towards a similar pattern to familiar faces after training.

All You Need Is <3

Quentin Raffaelli. Lia Kendall, Alan Kingstone, & Rebecca M. Todd

Comic and cartoon images often contain curious symbolism. Is there some advantage to these media that encourage their use? To test this we compared realistic and cartoonized images of faces and symbols, and recorded how people moved their gaze across stimuli containing both symbols and expressions. We found that, compared to realistic images, cartoon images are processed more quickly, allowing for rapid communication of information from stimulus to perceiver.

Paper Session 5

Indicators of System I and System II Decision Making when Diagnosing Clinical Cases

Chad C. Williams, Mike Paget, Sylvain Coderre, Kelly Burak, Bruce Wright, & Olave Krigolson

Understanding how clinicians make decisions is imperative to the health of their patients. In a reinforcement learning paradigm, participants were presented with physiological readings and used this information to diagnose clinical cases while electroencephalographic data were recorded. Our results demonstrated that participants were able to learn to diagnose clinical cases. Importantly, we discovered behavioural and neural indicators that can be used to discern between the decision making systems.

Search Through time is (sort of) like Search Through Space: Behavioural and Electrophysiological Evidence

Elizabeth G. Blundon, Samuel P. Rumak, & Lawrence M. Ward

In simultaneously-presented arrays of visual, auditory, and tactile stimuli, identification of targets that contain features that distractors lack (feature-present targets) is faster than identification of targets that lack features that distractors possess (feature-absent targets). We conducted five experiments in order to explore the generalizability of this search asymmetry phenomenon to sequential search, and to better understand its origin. Both behavioural and electrophysiological results are discussed.

The Influence of Acute Psychophysiological Stress on Appetitive Conditioning

Mana R. Ehlers & Rebecca M. Todd

Appetitive conditioning is a form of associative learning during which stimuli/events become motivationally salient through repetitive pairing with rewards. Despite its relevance for psychopathology, little is known about the influence of environmental factors. The present study provides evidence for reduced instrumental responding as well as impaired classical conditioning under acute psychophysiological arousal. These findings may help to understand how stress influences associative learning related to dysfunctional behaviors such as addiction.

Annotated Campus Map