



# **NOrthWest Cognition And Memory**

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.

## **NOWCAM 2012 PROGRAM**

## Simon Fraser University May 10<sup>th</sup>-12<sup>th</sup>

NOWCAM 2012 Hosted by Simon Fraser University Drs. Deborah Connolly, Mark R. Blair, Jamal K. Mansour, and John McDonald

Financially supported by: Simon Fraser University, University of Victoria, University of British Columbia, University of Washington & Western Washington University

Web Mastery: Chris Lalonde

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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.

## Acknowledgements

The SFU NOWCAM Organizing Committee would like to thank the Faculty of Arts and Social Sciences and the Department of Psychology for their financial and planning support. Also, we are grateful to the Student Organizing Committee of NOWCAM 2012: Jordan Barnes, Tony Bui, Kristin Chong, Jennifer Chapman, Trishia Coburn, Conny Horbach, Evan Hutcheon, Ali Jannati, Nicole Kim, Karen Lee, Edmond Leung, Karen Mangat, Caitlyn McColeman, Roberta Prattico, Sangeeta Singh, and Chad Williams. We would also give like to give a big hand to Debby McDonald for doing the photography and Richard Blackwell for videotaping the keynote. Finally, we would like to say thank you to Steve Lindsay for his speedy responses and the comprehensive and organized planning materials.

### **Locations of Presentations and Posters**

Presentations by the keynote and other speakers will be held in Saywell Hall (SWH) 10081. Poster sessions will be held in the Saywell Hall (SWH) Atrium.

### **Gala Dinner Information**

On Friday, May 11th a gala dinner will be held at the Diamond Alumni Centre, SFU at 7:00pm. The Diamond Alumni Centre 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 for only \$25 per person.

## **Program Outline**

### Thursday, May 10

8:00 pm – 11:00 pm No host reception at Highlands Pub (Maggie Benston Centre, SFU campus)

### Friday, May 11

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Registration (breakfast refreshments provided)
 8:00 am – 8:45 am
                       Opening Remarks
 8:45 am – 9:00 am
                       Paper Session I: Learning
 9:00 am - 10:00 am
10:00 am - 10:15 am
                       Break
10:15 am - 11:15 am
                       Paper Session II: Attention I
11:15 am - 12:45 pm
                       Lunch (on your own)
12:45 pm - 1:45 pm
                       Paper Session III: Attention II
 1:45 pm - 2:00 pm
                       Break
2:00 \text{ pm} - 3:00 \text{ pm}
                       Paper Session IV: Eyewitness Identification
 3:00 \text{ pm} - 3:15 \text{ pm}
                       Break (refreshments provided)
 3:15 \text{ pm} - 4:15 \text{ pm}
                       Paper Session V: Applied Memory Issues
4:15 pm - 5:45 pm
                       Poster Session I
5:45 \text{ pm} - 7:00 \text{ pm}
                       Keynote
 7:00 pm - 11:00 pm
                       Gala dinner at the Diamond Alumni Club (SFU campus)
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### **Saturday May 16**

9:30 am – 10:00 am	Registration (breakfast refreshments provided)
10:00 am - 11:00 am	Paper Session VI: Executive Function and Motor Control
11:00 am - 11:15 am	Break
11:15 am – 12:15 pm	Paper Session VII: Memory
12:15 pm – 2:30 pm	Pizza lunch (provided) and Poster Session II

# **Detailed Program**

### Thursday, May 10

9:00 pm - 11:00 pm No host reception at Highlands Pub (Maggie Benston Centre, SFU campus)

### Friday, May 11

8:00 am - 8:45 am	Registration (breakfast refreshments provided)
8:45 am - 9:00 am	<ul> <li>Opening Remarks</li> <li>Steve Lindsay, Grand Poo-bah Mother Hen of NOWCAM</li> <li>Deborah Connolly, Chair, SFU NOWCAM Organizing Committee</li> <li>Paul Budra, Associate Dean of the Faculty of Arts and Sciences, SFU</li> </ul>
9:00 am – 10:00 am	Paper Session I: Learning Chair: Fern Jaspers-Fayer
9:00 am	Learning the value of options: The role of anterior cingulate cortex in hierarchical reinforcement learning Akina Umemoto, Mike Yates, & Clay B. Holroyd
9:15 am	The topographical N170: lectrophysiological evidence of a neural mechanism for human spatial navigation Travis E. Baker, & Clay B. Holroyd
9:30 am	Impaired reward processing in substance dependent smokers  Jonathan M. A. Wood, Travis E. Baker, & Clay B. Holroyd
9:45 am	A neurophysiological marker of anticipation and error monitoring in developmental stuttering: a pilot study William R. Moore, Jason Davidow, & Mauricio Garcia-Barrera
10:00 am – 10:15 am	Break
10:15 am – 11:15 am	Paper Session II: Attention Chair: Caitlyn McColeman
10:15 am	A salient object within the attentional window fails to capture visual attention Ali Jannati, T.J. Radonjic, & John J. McDonald
10:30 am	Temporal Characteristics of Information Access in Categorization Tasks Lihan Chen, Mark R. Blair, Kim M. Meier, & Marcus R. Watson
10:45 am	Target salience and visual working memory capacity mediate the speed of attentional selection during visual search Gregory J. Christie, & John J. McDonald
11:00 am	Salience, similarity, and selective attention in categorization Caitlyn McColeman, & Mark R. Blair
11:15 am – 12:45 pm	Lunch (on your own)

### Friday, May 11 (continuation)

12:45 pm - 1:45 pm Paper Session III: Attention II Chair: Jordan Barnes Just dance (because the song's stuck anyway): Task nature and engagement affect 12:45 pm intrusive thoughts Hollyann Duskin, Joseph Pearson, Kayleigh Cutshaw, Allison Gotz, Emma Bent, & Ira E. Hyman 1:00 pm The effects of visual cues and time constraints on friendly fire Andrew Thompson, & Jamal K. Mansour Hemispheric interaction and task complexity: Are two heads really better than one? 1:15 pm Jennifer Kluftinger, & Barbara Rutherford 1:30 pm The psychology of card magic Jay A. Olson, Alym A. Amlani, & Ronald A. Rensink 1:45 pm - 2:00 pm **Break** 2:00 pm - 3:00 pm Paper Session IV: Eyewitness Identification Chair: Kristin Chong 2:00 pm Individual differences in eyewitness identification accuracy Jennifer Chapman, & Jamal K. Mansour 2:15 pm The effect of suspect-distractor similarity on identification accuracy: A meta-analysis Ryan J. Fitzgerald, Heather L. Price, Chris Oriet, & Steve D. Charman 2:30 pm Seguential versus simultaneous testing modulates test-composition effects on recognition. Sara D. Davis, & Glen E. Bodner Taming the "wild" in wildcard lineups: Unbiased lineups erase the benefits of 2:45 pm choosing not to choose Natalie M. Therrien, Ryan J. Fitzgerald, & Heather L. Price 3:00 pm - 3:15 pm **Break (refreshments provided)** 3:15 pm - 4:15 pm Paper Session V: Applied Memory Issues Chair: Carroll Boydell 3:15 pm Accuracy of time perception over one to five minutes Janel Fergusson. & Peter Graf 3:30 pm All tasks are not created equal: Type of processing within an encoding task modulates the DRM illusion, but not monitoring Mark J. Huff, & Glen E. Bodner 3:45 pm The influence of opposition instructions on perceived credibility Kirby Q. Maguire, & Heather L. Price A different kind of misinformation effect: False reports of not seeing event details 4:00 pm Tanjeem Azad, D. Stephen Lindsay, & C. A. Elizabeth Brimacombe

### Friday, May 11 (continuation)

#### 4:15 pm - 5:45 pm Poster Session I

- 1. Surprise affects hindsight bias for car crashes Bertrand Sager, Devon Currie, & Daniel M. Bernstein
- 2. What they think is not what you think: How gender of the complainant and plea impact judges' sentencing decisions

Patricia I. Coburn, Kristin Chong, Deborah A. Connolly, & J. Don. Read

- 3. It's never too late or is it? The impact of delay on sentencing outcomes on child sexual assault cases Kristin Chong, Patricia I. Coburn, Deborah A. Connolly, & J. Don Read
- **4.** Auditory hindsight bias priming Scott Jacobsen, Ragav Kumar, & Daniel M. Bernstein
- **5.** Colour saturation discrimination of grid patterns *Natasha Pestonji*, & *Peter Graf*
- **6.** Singleton-detection is not the default mode in visual search Hayley E. P. Lagroix, Matthew R. Yanko, & Thomas M. Spalek

7.

- **8.** Description of a child's relative maturity influences her perceived credibility *Brittany F. Whiting, Jasmin Dhillon, Heather L. Price, & Kim P. Roberts*
- **9.** The role of social categorization on processing of own- and other-race faces *Sol Sun, & Andrea Hughes*
- **10.** The role of private speech in executive function task performance *Katrina Barber, & Ulrich Mueller*
- **11.** Action facilitation: How do children use language when interacting with everyday objects? *Jessica Marriott, Ulrich Mueller, & Michael E. J. Masson*
- **12.** Explorations in negative congruency effects: can competition improve performance? *Kelsey Thompson*
- **13.** Grasp affordance of shape and identity Stefan C. Bourrier, Daniel N. Bub, & Michael Masson
- **14.** Elicitation of motor resonance during sentence comprehension *Hillary E. Lavelle*

15.

- **16.** Human place learning is faster than we thought: evidence from a new method *Dustin van Gerven, Susan Gillingham, & Ronald Skelton*
- 17. In a virtual Morris water maze better navigators orient using both egocentric and allocentric features: An eye tracking study.

  Megan Yim, Sonja Murchison, Corson Areshenkoff, Phil Zeman, & Ronald W. Skelton
- **18.** Creative expression activity programs in bc adult care facilities creative expression activity programs in BC adult care facilities

  Peter Graf, & Zorry Belchev

### Friday, May 11 (continuation)

- **19.** Construct validity and factor structure of a measure of aggressive attributional style *Melissa C. Hendry, & Kevin S. Douglas*
- **20.** Using simultaneously EEG-fMRI to study the brain's response to emotional events Fern Jaspers-Fayer, Matthias Ertl, Gregor Leicht, Anne Leupelt, & Christoph Mulert
- **21.** The recognition of facial expressions of emotion when objects are used as affective context *Emily McLellan & Jordan Sanders*
- **22.** Predicting lineup false identifications with a memory test *D. Stephen Lindsay, Joseph Sheppard, & Mario Baldassari*

5:45 pm – 7:00 pm Keynote: Cognitive Neuroscience of Attention and Working Memory: Some

**Selective Studies** 

Dr. Pierre Jolicoeur, Canada Research Chair of Experimental Neuroscience,

University of Montreal

7:00 pm – 11:00 pm Gala dinner at the Diamond Alumni Club (SFU campus)

### Saturday, May 12

9:30 am – 10:00 am	Registration (breakfast refreshments provided)
10:00 am – 11:00 am	Paper Session VI: Executive function and motor control Chair: Ali Jannati
10:00 am	Impulsive personality traits and prospective memory ability  Julie Chang, & Scott R. Carlson
10:15 am	Don't forget the sheep: How children with autism fair on executive function tasks as compared to their peers  Emily Gardiner, Sarah Hutchison, & Grace Iarocci
10:30 am	The role of motor features in naming objects  Terry Lin, Daniel N. Bub, & Michael Masson
10:45 am	Investigating the interaction of language comprehension and hand action preparation Andreas T. Breuer, Michael E. J. Masson, & Daniel N. Bub
11:00 am – 11:15 am	Break
11:15 am – 12:15 pm	Paper Session VII: Memory Chair: Patricia Colburn
11:15 am	Guess what? Adding a guess option eliminates test-list context effects on recognition judgments and ratings.  Cody Tousignant, Glen E. Bodner, & Michelle M. Arnold
11:30 am	Retrieval-induced forgetting or context-induced forgetting?  Tanya R. Jonker, Paul Seli, & Colin M. MacLeod
11:45 am	How divided-attention affects perspective taking Patricia I. Coburn, Devon Currie, Bertrand Sager, & Daniel M. Bernstein
12:00 pm	Experiencing the generation effect can eliminate the generation effect

### Saturday, May 12 (continuation)

#### 12:15 pm - 2:30 pm Pizza lunch (provided) and Poster Session II

- 1. Triggering intrusive songs through encoding specificity
  Hollyann Duskin, Joseph Pearson, Kayleigh Cutshaw, Emma Bent, Samantha Clark, Holly Minshull,
  Jordan Rice, Jesse Wear, Sheila Dashteshtani, Tiffany Denchfield, & Ira E. Hyman
- 2. The role of individual differences in three false memory paradigms

  Lecia Desjarlais, Dawn-Leah L. McDonald, Scott Jacobson, & Daniel M. Bernstein
- **3.** False memories: An ill-defined construct Lecia Desjarlais, Sarah Boorman, & Daniel M. Bernstein
- **4.** When memories collide: Collaborative remembering causes source memory confusion *Ira E. Hyman, Calvin Rabiroff, Rebecca Roundhill, & Kiernan Werner*
- Recognition bias of masterwork paintings versus words does not meet memorability expectations: the Materials-Based Bias Effect.
   Priya Rosenberg, Jordanna Freeman, Mario Baldassari, Justin Kantner, D. Stephen Lindsay
- **6.** Materials-based bias on a two-alternative forced choice recognition test *Jordanna Freeman, Mario Baldassari, Priya Rosenberg, Justin Kantner, and D. Stephen Lindsay*
- **7.** Who is to blame when we forget? *Michelle Crease, & Peter Graf*

8.

- **9.** False Memories through activation of a gender stereotype *Sarah E. Boorman, & Daniel M. Bernstein*
- **10.** Remnants of last term Tony Nguyen, Shih-Ting (Tina) Huang, & Peter Graf
- **11.** Visualizing memory: Susceptibility to false memories as a function of imagery ability *Theresa Kisko, & Scott Allen*
- **12.** The production effect in recognition: Increased distinctiveness vs. lazy reading *Alexander Taikh*, & *Glen E. Bodner*
- **13.** From kittens to diseases: Context valence influences prospective memory *Martin Yu, Bryan Tsui, & Peter Graf*
- **14.** Obsessive thoughts in romantic relationships Erica K. Peterson, Taylor E. Klein, Marta S. Unterschute, Amy M. Kevorkian, Ira E. Hyman, Jr., & James M. Graham
- **15.** The role of attention on schematic face recognition *Joshua R. Adams, & Cristina Sampaio*
- **16.** Driving with the wandering mind: The effect that mind-wandering has on driving performance *Matthew R. Yanko, & Thomas M. Spalek*
- **17.** Top-down control of attention during judgments of facial expressions *Dawn Chan, Victoria Kling, & Elina Birmingham*
- **18.** Forbidden Fruit: the role of self-relevance in ownership paradigms *Grace Truong, Nathan Wispinski, & Todd C. Handy*

### **Abstracts**

### **Paper Session I: Learning**

## 9:00 am Learning the value of options: The role of anterior cingulate cortex in hierarchical reinforcement learning

Akina Umemoto, Mike Yates, & Clay B. Holroyd

Much of our human behaviour is organized hierarchically. A recent theory of hierarchical reinforcement learning holds that anterior cingulated cortex may play a key role in learning option values and in shaping hierarchical behaviours. By measuring the reward positivity, an ERP component believed to be generated in the ACC, we elucidate the role of ACC in option selection and maintenance.

## 9:15 am The topographical N170: Electrophysiological evidence of a neural mechanism for human spatial navigation

Travis E Baker, & Clay B. Holroyd

We recently demonstrated that the topographical N170 latency is sensitive to the spatial location of reward stimuli in a virtual maze. Here we demonstrate this latency effect is observed only when the rewards are presented in a spatial environment, seen in relatively complex mazes, sensitive to individual differences in spatial ability, can be localized to the right parahippocampus and is consistent with partial phase resetting of an ongoing theta rhythm.

### 9:30am Impaired reward processing in substance dependent smokers

Jonathan M. A. Wood, Travis E. Baker, & Clay B. Holroyd

A previous study indicated that the reward positivity (RP), an ERP measure of a cortical mechanism for dopamine-dependent reward processing, is selectively disrupted in substance-dependent users. In the present study, we investigated whether this finding reflects decreased value of "normal" rewards relative to drug-related rewards. The results indicated substance dependent smokers, compared to non-dependent smokers, showed a reduced RP to earning money relative to earning cigarette puffs.

## 9:45 am A neurophysiological marker of anticipation and error monitoring in developmental stuttering: a pilot study

William R. Moore, Jason Davidow, & Mauricio Garcia-Barrera

The feedback error-related negativity (fERN), a neurophysiological marker of error monitoring, may be implicated in developmental stuttering. Ten fluent participants navigated through a reinforcement learning maze where they came across predictive and feedback stimuli. Once participants learned the association between the cues, the fERN was elicited to the predictive cues and not feedback cues. Future applications to better understanding these underlying mechanisms in developmental stuttering are discussed.

### Paper Session II: Attention I

## 10:15 am A salient object within the attentional window fails to capture visual attention Ali Jannati, T.J. Radonjic, & John J. McDonald

According to salience-driven selection hypothesis, a salient object within observers' attentional window captures attention automatically. To test this hypothesis, we measured ERPs in two conditions: (1) discriminating the size of a circle containing a red bar; (2) discriminating the length of the bar. Contrary to predictions from salience-driven selection, the red bar did not elicit N2pc, an index of attentional selection, in condition-(1), although it was within the attentional window.

## 10:30 am Temporal characteristics of information access in categorization tasks Lihan Chen. Mark R. Blair. Kim M. Meier. & Marcus R. Watson

We investigated temporal patterns of information access in categorization tasks. In the post-learning phase, fixations to irrelevant information were shorter than those to relevant information. Stronger temporal patterns in fixation order were found to be related to a faster reaction time, but not higher accuracy. Regular temporal patterns were observed in both eyetracking and mouse-driven environments. These data support the view that categorization is an inherently temporal process.

## 10:45 am Target salience and visual working memory capacity mediate the speed of attentional selection during visual search

Gregory J. Christie, & John J. McDonald

Observers performed a visual-search task requiring the comparison of a salient color singleton and a less salient shape singleton. Scalp-recorded ERPs indicated that attention was deployed initially to the color target and subsequently to the shape target, suggesting that the initial attentional selection was driven by stimulus salience. Furthermore, individual differences in visual WM capacity correlated with the speed of attentional redeployment, suggesting that high-capacity observers allocate and redeploy visual attention more efficiently.

## 11:00 am Salience, similarity, and selective attention in categorization Caitlyn McColeman, & R. Mark Blair

This study explores the effect of salient features on selective attention and categorization. It is expected that salient, irrelevant features will result in inefficient attention patterns, since bottom up processes draw attention to these features and away from the less salient, relevant ones. The work explores the interaction between top down, goal directed selective attention and bottom up attention in the context of categorization.

### Paper Session III: Attention II

## 12:45 am Just dance (because the song's stuck anyway): Task nature and engagement affect intrusive thoughts

Hollyann Duskin, Joseph Pearson, Kayleigh Cutshaw, Allison Gotz, Emma Bent, & Ira E. Hyman

We explored intrusive thoughts through the stuck song phenomenon in two experiments. Participants listened to songs then worked to complete a cognitive task that was either easy or challenging. The last song was more likely to return during challenging than easy Sudoku and anagram puzzles. Overall, participants were less likely to have a song return during the anagram puzzles than the Sudoku puzzles due to the verbal nature of anagrams.

### 1:00 am The effects of visual cues and time constraints on friendly fire

Andrew Thompson, & Jamal K. Mansour

This study explores how visual cues and time constraints influence shooting behaviours in a computer game simulating rules of engagement of the Canadian Forces. Participants (N = 222) were presented with targets possessing various postures, objects and clothing and made shooting decisions about each during either long (5000ms) or short (600ms) exposure. Reaction time in shoot decisions is examined to detect trends in decision making processes.

#### 1:15 am Hemispheric interaction and task complexity: Are two heads really better than one? Jennifer Kluftinger, & Barbara Rutherford

Interaction of the cerebral hemispheres has been found to benefit performance when a task is demanding, and cost performance when a task is simple. The present study examined this effect using letter matching tasks that were simple and complex, and a novel procedure to distract one or other hemisphere, or neither. Results converge with previous findings, and suggest that working memory load limits the effectiveness of hemispheric distractors.

#### 1:30 am The psychology of card magic

Jay A. Olson, Alym A. Amlani, & Ronald A. Rensink

Although magic has amazed people for thousands of years, magicians do not know the reasons why most tricks work. To understand these effects, we examined the perceptual and cognitive characteristics of playing cards. We apply our results to a principle of card magic called forcing, which occurs when the magician influences the audience's decision without their awareness. Studying forcing may help us understand which factors influence decision making.

### **Paper Session IV: Eyewitness Identification**

#### 2:00 pm Individual differences in eyewitness identification accuracy

Jennifer Chapman, & Jamal K. Mansour

We explored whether individual differences in four factors—depression, anxiety, self-monitoring, and impulsivity—have direct and/or interactive effects on eyewitness identifications. Participants watched a mock-crime video and after a short delay completed a lineup identification, a confidence rating, and standardized questionnaires for each of the four factors. The individual differences of interest did not predict accuracy over and above the predictive ability of confidence in the lineup decision.

## 2:15 pm The effect of suspect-distractor similarity on identification accuracy: A meta-analysis Ryan J. Fitzgerald, Heather L. Price, Chris Oriet, & Steve D. Charman

Eyewitnesses frequently attempt identification of culprits from line-ups composed of a suspect and a set of distractors. A meta-analysis of the impact of different levels of suspect-distractor similarity showed: (1) low similarity distractors increased suspect identifications; (2) moderate and high similarity distractors increased distractor identifications; and (3) suspect-distractor similarity had no reliable effects on line-up rejections. The results are discussed with respect to recommendations for improving line-up construction and presentation.

## 2:30 pm Sequential versus simultaneous testing modulates test-composition effects on recognition.

Sara D. Davis, & Glen E. Bodner

Surprisingly, not including new items on a recognition test does not affect hits, and not including old items does not affect false alarms (Cox & Dobbins, 2011; Wallace, 1980). We replicated this pattern with sequential testing (items presented one at a time), but found that test-composition effects emerged with simultaneous presentation (all items presented at once). We compare our results to findings from sequential versus simultaneous line-ups in eyewitness paradigms.

## 2:45 pm Taming the "wild" in wildcard lineups: Unbiased lineups erase the benefits of choosing not to choose

Natalie M. Therrien, Ryan J. Fitzgerald, & Heather L. Price

The Wildcard has been proposed as a technique to reduce the high rates of false-positive and choosing errors committed by children in lineup identification tasks. This method is nonetheless limited in that its effects have only been evinced using biased lineups. The current study replicated the Wildcard's benefits in a sample of undergraduate students using biased lineups, however the advantages were not evident when used with unbiased lineups.

### Paper Session V: Applied Memory Issues

### 3:15 pm Accuracy of time perception over one to five minutes

Janel Fergusson, & Peter Graf

Every day we complete many tasks for which timing is important, such as steeping a cup of tea. Previous studies have shown that intervals of 4 and 6 minutes are underestimated by a significantly larger percentage than 2 minute intervals. The present study was designed to investigate where these differences emerge. Subjects produced intervals between 1 and 5 minutes while engaged in a secondary task. Accuracy was compared across intervals.

## 3:30 pm All tasks are not created equal: Type of processing within an encoding task modulates the DRM illusion, but not monitoring

Mark J. Huff, & Glen E. Bodner

Using the DRM paradigm, we examined recognition following item-specific versus relational processing versions of three separate tasks (standard, pleasantness, and generation) relative to read control tasks. Signal-detection analyses showed that, across all three tasks, both item-specific and relational versions increased monitoring at test, but only the item-specific versions decreased false recognition. Thus, the type of processing rather than the type of task modulates the DRM illusion.

### 3:45 pm The influence of opposition instructions on perceived credibility

Kirby Q. Maguire, & Heather L. Price

Research shows that Opposition Instructions (OI) increase eyewitness accuracy, yet the influence of this retrieval instruction on credibility remains unexplored. The present study replicates existing literature concerning OI's beneficial effects on accuracy, and will also provide clarification regarding effects on credibility since, theoretically, the mechanism of OI leads to contradictory hypotheses regarding the latter. Results pertaining to eyewitness credibility will be discussed in light of policy implications for forensic investigation.

#### **4:00** pm A different kind of misinformation effect: False reports of not seeing event details Tanjeem Azad, D. Stephen Lindsay, & C. A. Elizabeth Brimacombe

The misinformation effect shows that erroneous details can be added to one's memory. Few studies have reported a different kind of memory error in which accurate details are erroneously suggested to not have occurred. Subjects watched a video and then 2-days later read witness testimonies that stated that certain details were not clearly visible even though they were clearly seen. We explored the qualitative characteristics underlying this memory phenomenon.

### Paper Session VI: Executive function and motor control

## 10:00 am Impulsive personality traits and prospective memory ability Julie Chang, & Scott R. Carlson

Associations between impulsive personality traits and prospective memory abilities were examined. Behavioural performance shows no significant relationship with impulsivity, but self-reports of memory efficacy are found to be positively correlated with measures of impulsive personality traits. The results suggest that self-confidence and beliefs in prospective memory capabilities may be related to trait impulsivity. Findings are discussed in the context of influences of individual perceptions on memory performance.

## 10:15 am Don't forget the sheep: How children with autism fair on executive function tasks as compared to their peers

Emily Gardiner, Sarah Hutchison, & Grace Iarocci

Preschoolers (36-83 months) with and without autism were compared on computer-based measures of executive function. When mental-age matched, no differences were observed on a working memory task. Inhibition tasks, however, presented conflicting results. Children with autism performed as well as those without on a Stroop task, yet demonstrated significantly more errors on Continuous Performance and Go/No-Go tasks. The relation to autism-specific characteristics, as well as methodological implications, will be discussed.

#### 10:30 am The role of motor features in naming objects

Terry Lin, Daniel N. Bub, & Michael Masson

Much evidence suggests that motor representation plays a functional role in object identification. Theorists propose that the manipulability of an object is part of the object's semantic description. However, the features of motor representation are unclear. In our study, distinctions were made between the wrist rotation and hand used to act upon an object. Object identification ability was only affected when the actions are partially incongruent with the target object.

## **10:45** am Investigating the interaction of language comprehension and hand action preparation Andreas T. Breuer, Michael E. J. Masson, & Daniel N. Bub

The representation of a hand posture associated with using or lifting a manipulable object is evoked merely when listening to the name of such an object (e.g., "cell phone"). We studied this interplay of language comprehension and motor processing using event-related potentials and time-frequency analyses. Subjects completed a go/no-go task in which they listened to words while preparing related or unrelated hand actions.

### **Paper Session VII: Memory**

## 11:15 am Guess what? Adding a guess option eliminates test-list context effects on recognition judgments and ratings

Cody Tousignant, Glen E. Bodner, & Michelle M. Arnold

On a recognition test, items of average memorability tend to receive more recollection judgments (Bodner & Lindsay, 2003), or higher recollection ratings (Tousignant & Bodner, in press), when mixed with relatively less-memorable (vs. more-memorable) items. We report that these test-list context effects vanish when a guess response option is available. Our results have implications for measuring subjective recognition states of recollection and familiarity using either binary judgments or independent ratings.

#### 11:30 am Retrieval-induced forgetting or context-induced forgetting?

Tanya R. Jonker, Paul Seli, & Colin M. MacLeod

Practicing retrieval aids later recall of practiced information but can impair recall of related material, a phenomenon called retrieval-induced forgetting (RIF). The received explanation is that related material is inhibited to facilitate retrieval of practiced material. We demonstrate experimentally that RIF occurs only under two conditions: Context changes between study and practice, and the practice context is present at test. On this basis, we propose a contextual account of RIF.

#### 11:45 am How divided-attention affects perspective taking

Patricia I. Coburn, Devon Currie, Bertrand Sager, & Daniel M. Bernstein

In experiment 1, participants listened to stories and answered critical questions that required them to either locate an object (memory) or take the perspective of the protagonist (perspective- taking). Participants completed trials with or without distraction. Errors were greatest on perspective-taking questions under distraction. In experiment 2, distraction was manipulated only during the critical question portion. This eliminated the effect of distraction, indicating that divided- attention impacts encoding rather than perspective-taking specifically.

#### 12:00 pm Experiencing the generation effect can eliminate the generation effect Andrea N. Burnett, & Glen E. Bodner

Memory is typically better for generated items than for read items, (e.g.,) Slamecka & Graf, 1978). In contrast, de Winstanley and Bjork (2004) reported that participants who experienced this generation effect on Test 1 changed their study strategy for read items in a second study phase, thus eliminating the generation effect on Test 2. We examined the roles of study-task practice and the initial test composition on these effects.

#### **Poster Session I**

#### 1. Surprise affects hindsight bias for car crashes

Bertrand Sager, Devon Currie, & Daniel M. Bernstein

Calvillo and Gomes (2011) showed that moderately-surprising animated car crashes produce hindsight bias (HB), but highly-surprising crashes produce reverse HB. These results support a sense-making model of HB, suggesting HB requires moderate surprise in a visually dynamic paradigm. We replicated the moderately-surprising crash HB results but failed to replicate the highly-surprising crash reverse HB results. We suggest differing levels of resultant surprise due to driver experience as an explanation.

## 2. What they think is not what you think: How gender of the complainant and plea impact judges' sentencing decisions.

Patricia I. Coburn, Kristin Chong, Deborah A. Connolly, & J. Don. Read

To investigate the effect of complainant gender, plea and nature of the offence on sentence length we analyzed 1270 complaints of child sexual assault. Criminal cases were coded using variables relevant to judicial outcomes. Sentences were longest for the most invasive offences, regardless of gender or plea. Plea impacted length of probation only in cases involving male complainants. Results are discussed in terms of legally relevant mitigating and aggravating factors.

## 3. It's never too late – or is it? The impact of delay on sentencing outcomes on child sexual assault cases.

Kristin Chong, Patricia I. Coburn, Deborah A. Connolly, & J. Don Read

We investigated the impact of delay, plea and nature of the offence on sentencing outcomes in 1270 criminal cases involving child sexual assault. Cases were coded on legal factors relating to sentencing. Delay, nature of the offence, and plea all affected length of community sentences, jail terms, and probation with only delay affecting all three outcomes. Implications of these effects are discussed in relation to legally and cognitively relevant factors.

#### 4. Auditory hindsight bias – priming

Scott Jacobsen, Ragav Kumar, & Daniel M. Bernstein

Hindsight bias is the tendency to overestimate one's ability to have predicted an event once the outcome is known. Two previous studies examined hindsight bias and priming to separate conceptual and perceptual fluency. The current study examined auditory hindsight bias and priming together using words and non-words. The current study uses both conceptual and perceptual fluency. Results show no interaction, indicating hindsight bias and priming may be the same thing.

#### 5. Colour saturation discrimination of grid patterns

Natasha Pestonii. & Peter Graf

How good are we at discriminating between displays differing in color saturation, and is the relationship between discrimination performance and saturation the same across colours? We required students to discriminate between grid patterns displayed in red, blue or green. Results revealed the same pattern for all colours with poor performance on displays with only a 20 point saturation difference but excellent performance when displays differed by 80 saturation scale points.

### **Poster Session I (continuation)**

6. Singleton-detection is not the default mode in visual search Hayley E. P. Lagroix, Matthew R. Yanko, & Thomas M. Spalek

In visual search, observers can use one of two search modes: singleton-detection or feature-search. Contrary to the common belief that singleton-detection is the default mode (Bacon & Egeth, 1994), we show that observers shift gradually from feature-search to singleton-detection mode as the number of possible features is increased to four. This shift may be related to the capacity limit of working memory, estimated at four items (Luck & Vogel, 1997).

7.

8. Description of a child's relative maturity influences her perceived credibility Brittany F. Whiting, Jasmin Dhillon, Heather L. Price, & Kim P. Roberts

Excerpts from actual investigative interviews with allegedly abused children were presented to undergraduate participants. The vignettes differed in terms of the frequency of the abuse described (single instance/repeated occurrence), children's language (episodic/generic), and a preceding description of the child (mature/immature for her age). Describing the child as mature enhanced ratings of the child's honesty, cognitive competency, credibility, consistency, confidence, and likeability, regardless of abuse frequency and language.

9. The role of social categorization on processing of own- and other-race faces Sol Sun, & Andrea Hughes

Could the race-typicality of a name influence the configural and featural processing styles thought to underlie the own-race bias for faces? Our participants studied own- and other-race faces, each paired with either a matching or mismatching race-typical name. We found that top-down cues such as the race-typicality of a name may guide the usage of a configural or featural approach to processing own- and other-race faces.

**10.** The role of private speech in executive function task performance *Katrina Barber, & Ulrich Mueller* 

This study explored the relationship between private speech (PS) and executive function (EF). We explored the relationship between task difficulty and PS, the affect of PS on EF and whether PS differentially affects different components of EF. Findings support a quadratic relationship between task difficulty and PS, and suggest that PS does have an impact in EF performance as well as impacting working memory performance more than that of inhibition.

11. Action facilitation: How do children use language when interacting with everyday objects? Jessica Marriott, Ulrich Mueller, & Michael E. J. Masson

The current study examines the nature of functional action representations evoked during the comprehension of an object word using an action priming paradigm in children aged 7 to 12 years and in adults. For younger children (aged 7 to 9 years), older children (aged 10 to 12 years), and adults, latency times were shorter in the congruent as opposed to the incongruent trials.

### **Poster Session I (continuation)**

## 12. Explorations in negative congruency effects: Can competition improve performance? *Kelsey Thompson*

Conflicting motor action plans usually increase response times in task completion, but there are some instances in which they actually elicit faster responses, known as negative congruency effects (NCEs). This study tests for the presence of NCEs using a version of the Eriksen Flanker. While actual NCEs are not observed, it is shown that it is possible to separately manipulate the pathways implicated in conflict resolution in order to produce predictable patterns of behaviour.

#### 13. Grasp affordance of shape and identity

Stefan C. Bourrier, Daniel Bub, & Michael Masson

The mechanisms underlying embodied cognition, grasp action and motor intention remain hidden within the neuro-cognitive system. Our participants completed a reach and grasp task using a response device called the 'Graspasaurus' which measured individual response times for cued grasp actions. Analysis revealed that an object's spatial alignment can quicken response time. Even more interesting, we have shown that object identity also plays an important role in motor system priming.

#### 14. Elicitation of motor resonance during sentence comprehension

Hillary E. Lavelle

Sentence context appears to have a strong influence on the motor representations elicited by language comprehension. Subjects performed a cued reach-and-grasp response while listening to a sentence describing a goal-oriented interaction with a manipulable object. Responses were primed when they matched the proximal goal of a sentence (The boy lifted the cell phone...), but these context-specific effects were only observed when the proximal goal was described first in the sentence. When the distal goal was described first (In order to clear the shelf...), the opposite response was primed over the one described by the sentence. These results demonstrate that mental representations of language do not follow the straightforward course of the sentence, but rather reflect the hierarchy of goals that are described within a sentence.

15.

## 16. Human place learning is faster than we thought: evidence from a new method Dustin van Gerven, Susan Gillingham, & Ronald Skelton

Cognitive mapping theories predict that hippocampally mediated place learning occurs very rapidly, if not instantly. However, typical measures in the archetypal place learning task, the Morris water maze, usually show that learning is slow and progressive. Using a new type of trial to track place acquisition trial by trial, we show that human place learning in a virtual Morris water maze can indeed occur very quickly.

## 17. In a virtual Morris water maze better navigators orient using both egocentric and allocentric features: An eye tracking study

Megan Yim, Sonja Murchison, Corson Areshenkoff, Phil Zeman, & Ronald W. Skelton

Some people are better navigators than others. In this study we tracked gaze position during the first, orienting, second of each trial in a special virtual maze that could be solved using either egocentric or allocentric environmental features. Participants who oriented to both egocentric and allocentric features were better navigators than those who used only one. This suggests that better navigators encode information for both strategies.

### **Poster Session I (continuation)**

## 18. Creative expression activity programs in BC adult care facilities creative expression activity programs in BC adult care facilities

Peter Graf, & Zorry Belchev

As a growing portion of the population ages and the number of seniors with dementia swells, there is increased pressure on the healthcare system. In the current study, we surveyed BC adult care centres in order to examine the types of activity programs that are available for the purpose of enhancing well-being and quality of life. The results reveal vast differences in availability and resourcing across care facilities.

## 19. Construct validity and factor structure of a measure of aggressive attributional style Melissa C. Hendry, & Kevin S. Douglas

The External Hostile Attribution Scale (EHAS) is a relatively new scale of aggressive attributional style, which plays an important role in social cognition. In three samples totalling 617 civil psychiatric patients, criminal offenders, and undergraduate students, initial analyses showed that the EHAS is significantly related to measures of delusions, paranoia, and criminal attitudes. The factor structure of the EHAS will also be examined. Findings and implications will be discussed.

## **20.** Using simultaneously EEG-fMRI to study the brain's response to emotional events Fern Jaspers-Fayer, Matthias Ertl, Gregor Leicht, Anne Leupelt, & Christoph Mulert

Event-related potentials (ERP) have shown an early posterior negativity (EPN) related to emotional events. We localized the generators using simultaneously recorded EEG-fMRI. Twenty subjects completed three auditory discrimination tasks: (1) neutral pitch, (2) emotional prosody, and (3) emotional semantic categorization. The EPN was related to bilateral activation of the STG, parietal lobe, ACC, and insula. Our findings suggest that frontal areas are involved in the early stages emotional processing.

## 21. The recognition of facial expressions of emotion when objects are used as affective context *Emily McLellan & Jordan Sanders*

Current literature indicates that we routinely process context during emotion perception. A type of processing that is both rapid and global in nature. However, few studies have sought to define context. In the current study we used objects as context and controlled for variations such as body language. We found that when the face was incongruent with the affective context there was an interference effect on participants' response time.

#### 22. Predicting lineup false identifications with a memory test

D. Stephen Lindsay, Joseph Sheppard, & Mario Baldassari

A memory test using 2AFC trick items was studied to see if it could improve prediction of false alarms in a target absent lineups. The 2AFC trick items force participants to choose which of two faces were seen before, when neither were seen before. Our results did not show increased predictability of FAs in TA lineups, but did show promise in measuring individual differences in eyewitness recognition performance.

#### **Poster Session II**

#### 1. Triggering intrusive songs through encoding specificity

Hollyann Duskin, Joseph Pearson, Kayleigh Cutshaw, Emma Bent, Samantha Clark, Holly Minshull, Jordan Rice, Jesse Wear, Sheila Dashteshtani, Tiffany Denchfield, & Ira E. Hyman

Intrusive thoughts are believed to be triggered by appropriate retrieval cues and may become associated with previously unrelated cues. We used intrusive songs to investigate this effect. Participants performed a cognitive task while listening to two songs and later performed the same or a different task. We looked at whether intrusive songs were more likely to return when the final task was the same as the encoding task.

#### 2. The role of individual differences in three false memory paradigms

Lecia Desjarlais, Dawn-Leah L. McDonald, Scott Jacobson, & Daniel M. Bernstein

Debate surrounds the role of individual differences in several false memories paradigms. We examined the impact of visualization ability, fantasy proneness, and dissociation on three false memory measures: false autobiographical memory, misinformation, and the Deese-Roediger-McDermott (DRM) paradigm. We found few correlations overall, indicating weak evidence for individual differences in false memory.

#### 3. False memories: An ill-defined construct

Lecia Desjarlais, Sarah Boorman, & Daniel M. Bernstein

False memory, broadly defined, is remembering something that didn't happen. Researchers have measured false memory in various ways. We examined three paradigms including false autobiographical memories, misinformation, and the Deese-Roediger-McDermott (DRM) paradigm (N=152), and found no correlations among false memories in these paradigms. We argue that researchers may be measuring different aspects of false memory and that the "false memory" construct must be defined more precisely.

#### 4. When memories collide: Collaborative remembering causes source memory confusion Ira E. Hyman, Calvin Rabiroff, Rebecca Roundhill, & Kiernan Werner

People often confuse the source of their memories. We examined how people attribute memories after collaborative remembering. Pairs of participants individually studied partially overlapping word lists and then recalled the words while their conversation was recorded. On individual source memory tests following collaborative remembering, participants made source misattributions, claiming they had studied words that only their partner originally saw. Through collaborative remembering, shared memories can become personal memories.

## 5. Recognition bias of masterwork paintings versus words does not meet memorability expectations: The materials-based bias effect.

Priya Rosenberg, Jordanna Freeman, Mario Baldassari, Justin Kantner, D. Stephen Lindsay

Using signal detection theory of recognition memory, we found that when materials were masterwork paintings - compared to words - subjects showed a pronounced conservative response bias. We assessed the relationship between this materials-based bias and subjects' beliefs as to their ability to recognize paintings versus words. Participants expected to remember paintings better than words, but the bias was not driven by those expectations.

### **Poster Session II (continuation)**

#### 6. Materials-based bias on a two-alternative forced choice recognition test

Jordanna Freeman, Mario Baldassari, Priya Rosenberg, Justin Kantner, and D. Stephen Lindsay

We found that subjects showed a conservative bias for paintings but not for words in a recognition memory test. In expanding the test from pure recognition to two-alternative forced choice, we replicated the effect. No bias was shown when paintings were compared to paintings or when words were compared to words in the test, and memory was significantly better for words than for paintings when test materials were mixed.

#### 7. Who is to blame when we forget?

Michelle Crease, & Peter Graf

People tend to give different interpretations for retrospective memory (RetM) and prospective memory (ProM) failures. To understand this tendency, we required students to read vignettes of ProM and RetM failures differing in importance and sociality; they rated each vignette on 14 different 6-point scales. Results showed systematic differences between the RetM and ProM failure interpretations, as well as the expected effects due to the task importance manipulation.

8.

#### 9. False memories through activation of a gender stereotype

Sarah E. Boorman, & Daniel M. Bernstein

We adapted a version of the Deese-Roediger-McDermott (DRM) paradigm to study how activating a gender stereotype affects false memories. Before listening to a list of gender-neutral occupations, participants (N = 130) learned that the list pertained to typical male occupations, typical female occupations, or just occupations. Responses on a recognition test demonstrated that participants were likely to falsely identify stereotype-consistent occupations as being on the original gender-neutral list.

#### 10. Remnants of last term

Tony Nguyen, Shih-Ting (Tina) Huang, & Peter Graf

This study investigates whether the serial position effect occurs in undergraduate students' memory for events and experiences that happened in a course taken in the preceding academic term. Each subject provided ten memories related to a course, as well as the dates, context, and emotionality and vividness ratings for each memory. The results did not follow the serial position curve possibly due to the isolation effect caused by exams.

#### 11. Visualizing memory: Susceptibility to false memories as a function of imagery ability Theresa Kisko, & Scott Allen

Participants with high versus low imagery ability (VVIQ) were tested for susceptibility to false memories using a variant of the Deese-Roediger-McDermott paradigm. High imagers were no more likely than low imagers to recall the (non-presented) lure words, nor did presentation of the list items as words versus pictures affect their recall. Low imagers were able to discriminate the format of presentation marginally better than high imagers.

### **Poster Session II (continuation)**

## 12. The production effect in recognition: Increased distinctiveness vs. lazy reading Alexander Taikh, & Glen E. Bodner

The production effect is a memory advantage for items studied aloud over items studied silently. It typically occurs within-subjects but not between-subjects. The production effect has been attributed to the enhanced encoding of aloud items relative to silent items (i.e., increased distinctiveness). Using within- and between-subject designs, we report recognition data showing that impaired encoding of the silent items (i.e., lazy reading) contributes to the size of the production effect.

## 13. From kittens to diseases: Context valence influences prospective memory Martin Yu, Bryan Tsui, & Peter Graf

This study examined whether prospective memory task performance is affected by the presence of a positively or negatively valenced context. Undergraduate students responded to neutral picture cues which were displayed in positive, negative, and neutral contexts. The contexts were created by means of pictures with positive, negative or neutral valences. Prospective task performance is higher with cues displayed in a negative or positive context than a neutral context.

#### 14. Obsessive thoughts in romantic relationships

Erica K. Peterson, Taylor E. Klein, Marta S. Unterschute, Amy M. Kevorkian, Ira E. Hyman, Jr., & James M. Graham

We investigated intrusive relationship thoughts among romantically involved individuals. Participants first thought and wrote about either a positive, negative, or neutral event in their romantic relationship. They then worked on either easy or challenging Sudoku puzzles. Immediately after, participants rated the frequency and content of intrusive relationship thoughts experienced during the Sudoku puzzles. We analyzed intrusive thoughts based on relationship status, remembered relationship event, and difficulty of the Sudoku puzzle.

### 15. The role of attention on schematic face recognition

Joshua R. Adams, & Cristina Sampaio

Our study explores the role of attention on recognition of stereotypical and non-stereotypical faces. Specifically, we examine whether degree of deviation of facial features with respect to face stereotypes predicts successful recognition. We tested recognition for a stereotypical face, a face moderately distorted from the stereotype, and a face extremely distorted from the stereotype. Results are interpreted using a type of schema theory formulated for its application to face processing.

## 16. Driving with the wandering mind: The effect that mind-wandering has on driving performance Matthew R. Yanko, & Thomas M. Spalek

When your mind wanders from the task of driving, the ability to respond to sudden changes in the environment may suffer. However, no research exists to confirm such a supposition. Across a series of experiments using a high-fidelity driving simulator, we found that drivers increased separation from a lead vehicle when mind-wandering and, with following distance held constant, drivers showed slower RTs to a lead vehicle breaking.

### **Poster Session II (continuation)**

#### 17. Top-down control of attention during judgments of facial expressions Dawn Chan, Victoria Kling, & Elina Birmingham

We used the Moving Window Technique (MWT) to examine top-down attentional strategies used during facial emotion recognition. Adult observers explored blurry faces using a mouse-controlled window revealing detailed visual information. In one block, observers viewed open-mouthed faces; in another block, observers viewed the same faces with closed mouths. We hypothesized that observers would adapt their exploration strategy according to the amount of information provided by the mouths.

## 18. Forbidden Fruit: the role of self-relevance in ownership paradigms Grace Truong, Nathan Wispinski, & Todd C. Handy

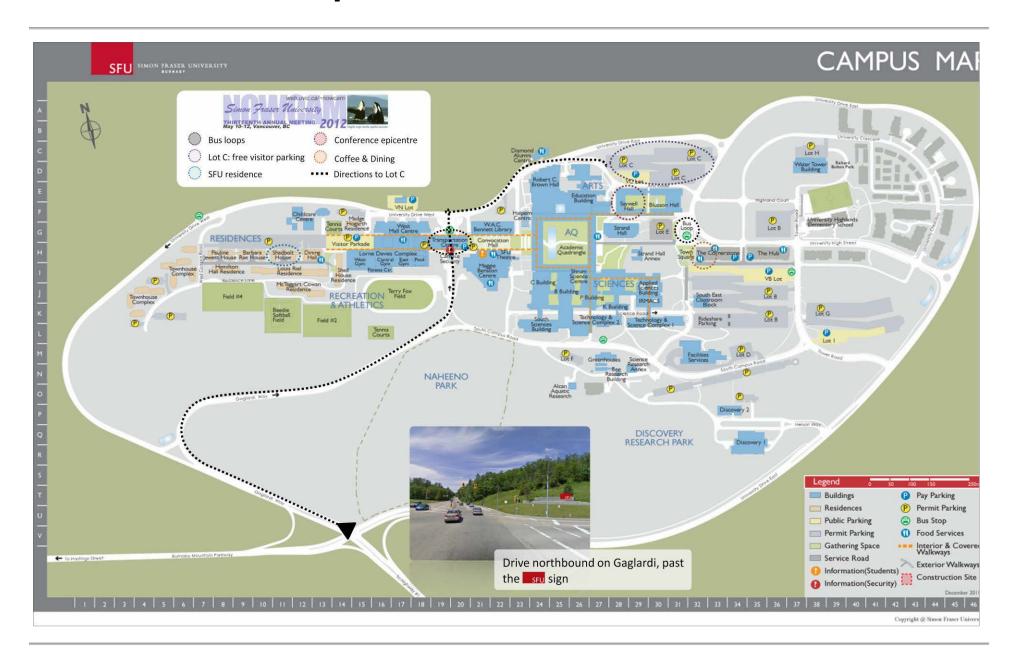
Does making objects forbidden increase their self-relevance? Self-relevance facilitates attentional advantages for self versus other-owned objects. Forbidden objects are not self-owned, and therefore not self-relevant. Consequently, one expects less attention and memory for them. Participants sorted objects into categories: self-owned, other-owned, and forbidden. Subsequent object recall for forbidden objects and self-owned objects were equivalent; both were better than other-owned objects. Object processing for forbidden objects is consistent with high self-relevance.

### **Internet Access**

If your institution is a member of eduroam and your wireless device (laptop, tablet, etc.) has been configured to use eduroam, please connect to the SFUNET-SECURE wireless network and enter the credentials you would enter if logging on at your institution. This will provide you secure internet access (<a href="https://wiki.bc.net/atl-conf/display/Services/How+to+use+eduroam">https://wiki.bc.net/atl-conf/display/Services/How+to+use+eduroam</a>).

If your institution does not belong to eduroam or your wireless device has not been configured to use eduroam, there are laptop internet access stations on the bottom floor of the Academic Quadrangle. You will need to bring an Ethernet cable to access the internet from these stations, however.

## **Maps & Transit Information**



## **Directions to the Burnaby campus**

### **Driving**

#### From the East

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

#### From the West

- Trans-Canada Highway (Highway 1) going east take the Gaglardi Way exit 37.
- Lougheed Highway (Highway 7) going east turn left (north) at Gaglardi 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 Gaglardi Way exit 37.

#### 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.

#### From Kwantlen 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 Gaglardi 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, keeping left onto the fork. Turn left onto University Dr E. Turn left at Trans Canada Trail. Turn left, destination will be on the left.

## **Directions to the Burnaby campus**

### By Bus

Current schedules, route maps and fares for bus, SkyTrain, SeaBus and West Coast Express services are available at <a href="https://www.translink.bc.ca">www.translink.bc.ca</a>

#### #135 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

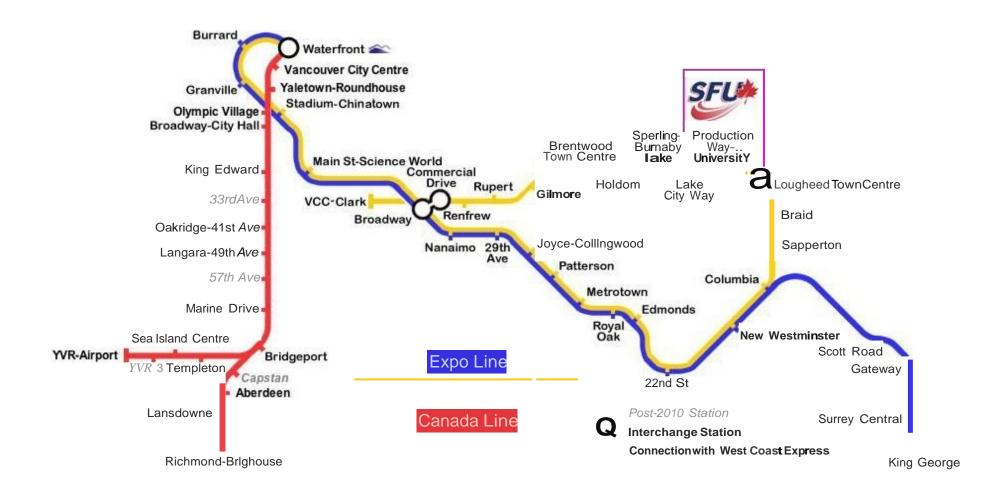
Daily, from Production Way SkyTrain Station to SFU Burnaby via Production, Broadway, Gaglardi Way, University Drive East and East Campus Road to SFU Exchange.

#### #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 which goes daily to and from Burnaby campus. See map on next page.



### **Directions to Downtown Vancouver**

### **Driving**

 From visitor parking lot, drive onto university Dr. E towards Burnaby Mountain Pkwy, turn right onto Burnaby Mountain Pkwy, continue onto E Hastings St E. Turn left to stay on E Hastings St E. E Hastings St E turns slightly right and becomes Hastings Street, continue onto Hastings St. Turn left onto Willingdon Ave. Turn right onto Lougheed Hwy/BC-7W, continue to follow BC-7W. Turn left onto Yukon St.

### By Bus

#### #145

 Take #145 Bus towards 145 Production Stn, get off at WB Lougheed NS production Way bay 4, walk to Production Way-University Skytrain. Take Millennium Line train to VCC-CLARK. Get off at Commercial Broadway Platform1. Walk to WB E Broadway NS Commercial Broadway Bay 2. Take #099 Bus towards 99 UBC. Get off at WB w Broadway FS Cambie St.

#### #135

 Take #135 Bus towards 136 Burrard Stn. Get off at WB w Hasting St NS Granville St. Walk to Waterfront Station Southbound. Take Canada Line to Richmond- Brighouse and get off at Broadway-City Hall Stn Southbound.

## **Parking on Campus**

## **Free Parking During Conference**

All attendees of NOWCAM may park for free in Lot C throughout the conference. Lot C is located Northeast of the Saywell Hall, where the conference sessions are being held.

### **UBC** and **U** of Vic Attendees

Please note that due to a reciprocity agreement all UBC and U of Vic (sorry Washington!) staff and faculty members are able to park free of charge in the visitor's parking lots/parkades provided they display their valid annual parking permit.

# **Campus Food Services**

	Food Service	Location	Opening Hours
食物	Bamboo Garden	Cornerstone	Thurs-Fri 10:00am-9:00pm Sat 10:00am-9:00pm
290ster Dulle	Booster Juice	Cornerstone	Thurs-Fri 8:00am-7:00pm Sat 11:00am-6:00pm
CLUB ILIA Eatery & Lounge	Club Ilia	Cornerstone	Thurs-Fri 11:00am-10:00pm Sat 12:00am-8:00pm
	Donair Town	Cornerstone	Thurs-Fri 10:00am-8:00pm Sat 12:00pm-4:00pm
वृति	Himalayan Peak	Cornerstone	Thurs-Fri 11:00am-9:00pm Sat 12:00pm-9:00pm
与 visiti	Ichibankan Express	Cornerstone	Thurs-Sat 10:30pm-5:00pm
Organic	Nature's Garden	Cornerstone	Thurs-Fri 7:00am-6:00pm Sat 8:30am-5:00pm
NESTERS MARKET	Nester's Market	Cornerstone	Everyday 8:00am-9:00pm
	Plum Garden Noodle House	Cornerstone	Thurs-Fri 10:00am-8:00pm Sat 11:00am-4:00pm
PIZZA	Pizza Point	Cornerstone	Thurs-Fri 10:00am-8:00pm Sat 11:00am-4:00pm

Z	Renaissance Coffee	Cornerstone & Academic Quadrangle (AQ), Mackenzie Café	Thurs-Fri Sat	9:00am-8:00pm 11:00am-5:00pm
	Spicy Stone	Cornerstone	Thurs-Fri Sat	9:00am-8:00pm 9:00am-7:00pm
	Subway	Cornerstone & Academic Quadrangle (AQ)	Thurs-Fri Sat	7:00am-10:00pm 8:00am-10:00pm
THOMAL PARVER	Pearl Fever Tea House	Cornerstone	Thurs-Fri Sat	10:15am-7:30pm closed
Tim Hortons,	Tim Hortons	Westmall Complex	Thurs-Fri Sat	8:00am-4:00pm closed
	Mackenzie Café	Academic Quadrangle (AQ) 3000 Level	Thurs-Fri Sat	8:00am-3:00pm closed
White Spot	White Spot Express Triple O's	Academic Quadrangle (AQ) - Near Images Theatre	Thurs Fri Sat	9:00am-3:00pm 9:00am-2:00pm closed
Higher Grounds  offer and	Higher Grounds	Maggie Benston Centre		
HIGHLANDS	Highland Pub	Maggie Benston Centre - Above Higher Grounds	Thurs-Fri Sat	11:00am-1:00am closed
MR.SUB	Mr. Sub	Maggie Benston Centre	Thurs-Fri Sat	8:00am -4:00pm closed
JAPAN	Koya Japan	Maggie Benston Centre		
The state of the s	Bubble World Bubble Tea	Maggie Benston Centre	Thurs Fri Sat	11:00am-6:00pm 11:00am-5:00pm closed

## **Bars, Nightclubs, Attractions & Trails**

#### **Bars**

- The Yale Hotel (rhythm and blues bar)
   1300 Granville Street Yale Hotel, Vancouver, BC (604) 681-9253
- The Blarney Stone (Irish pub)
   216 Carrall Street, Vancouver, BC
   (604) 687-4322
- UVA Wine Bar
   900 Seymour Street, `Vancouver
   (604) 632-9560

### **Nightclubs**

- The Tonic Club- 919 Granville St, Vancouver, BC. 604-669-0469
- Bar None- 1222 Hamilton St, Vancouver, BC. 604-689-7000
- AuBar- 674 Seymour St, Vancouver, BC. 604-648-2227
- Shark Club (sports bar) 180 West Georgia Street, Vancouver, BC. 604-687-4275
- Venue- 881 Granville Street Vancouver, BC V6Z 1K7 (604) 646-0064

#### **Tourist Attractions**

- Stanley Park
- Capilano Suspension Bridge
- Vancouver Aquarium
- Canada Place
- Dr. Sun Yat Sen Gardens
- Gastown
- Chinatown
- Grouse Mountain
- The Lookout

### Walks & Hiking Trails

- http://www.vancouvertrails.com/trails/deer-lake/
- http://www.vancouvertrails.com/trails/stanley-park/
- http://www.vancouvertrails.com/trails/two-canyon-loop/
- http://www.vancouvertrails.com/trails/baden-powell-deep-cove-to-lynn-canyon/
- http://www.vancouvertrails.com/trails/sendero-diez-vistas/

## Pre-registrants' Names, E-mails, and Affiliations

Name	Email	Affiliation
A. Nicole Burnett	anburnet@ucalgary.ca	University of Calgary
Akina Umemoto	aumemoto@uvic.ca	University of Victoria
Alexander Taikh	ataikh@ucalgary.ca	University of Calgary
Ali Jannati	jannati@gmail.com	SFU
Andrea Hughes	andrea.hughes@ufv.ca	University of the Fraser Valley
Andreas Breuer	abreuer@uvic.ca	University of Victoria
ANDREW F. WOOD	afw@mypacifiquest.com	Interested Observer
Andrew Thompson	adthomps@sfu.ca	Simon Fraser University
Barbara Rutherford	barbara.rutherford@ubc.ca	UBC Okanagan
Bertrand Sager	bertrand.sager@kwantlen.net	Kwantlen Polytechnic University
Brittany F. Whiting	whitinbr@uregina.ca	University of Regina
Bryan Tsui	bryantsui91@hotmail.com	UBC
Caitlyn McColeman	cmccolem@sfu.ca	Simon Fraser University
Calvin Rabiroff	calrabiroff@gmail.com	Western Washington University
Carla L. MacLean	carla_maclean@sfu.ca	Simon Fraser University
Carroll Boydell	carrollb@sfu.ca	Simon Fraser University
Chad Williams	ccwillia@sfu.ca	Simon Fraser University
Charlie Spears	spearsc@cwu.edu	Central Washington University
Cody Tousignant	catousig@ucalgary.ca	University of Calgary
Conny Horbach	horb1302@uni-trier.de	?
Cristina Sampaio	cristina.sampaio@wwu.edu	Western Washington University
Dan Freeman	dan.t.freeman@gmail.com	Kwantlen Polytechnic University
Daniel Bernstein	daniel.bernstein@kwantlen.ca	Kwantlen Polytechnic University
Daniel Chadwick	daniel1983@gmail.com	Vancouver Island University
Darren MacKenzie	darren277@yahoo.com	?
Dawn Chan	dtc8@sfu.ca	Simon Fraser University
Dawn-Leah McDonald	dawnleah.mcdonald@gmail.com	Kwantlen Polytechnic University
Deb Connolly	debc@sfu.ca	Simon Fraser University
Devon Currie	Devon.Currie@kwantlen.net	Kwantlen Polytechnic University
Don Read	jdonread@sfu.ca	SFU
Dustin van Gerven	dustin.van.gerven@gmail.com	University of Victoria
Edmond Leung	etl6@sfu.ca	Simon Fraser University
Elina Birmingham	ebirming@sfu.ca	Simon Fraser University
Emily Gardiner	emily_gardiner@sfu.ca	Simon Fraser University
Emily M. McLellan	emilymcl@uvic.ca	University of Victoria
Emma Bent	emmacbent@gmail.com	Western Washington University
Eric Eich	ee@psych.ubc.ca	UBC
Eric Magnusson	emagnuss@sfu.ca	Simon Fraser University
Erica K. Peterson	peter207@students.wwu.edu	Western Washington University
Fern Jaspers-Fayer	fjaspers@sfu.ca	SFU
Glen Bodner	bodner@ucalgary.ca	University of Calgary
Grace Truong	gracet@psych.ubc.ca	University of British Columbia
Hayley Lagroix	hlagroix@sfu.ca	Simon Fraser University
Heather L. Price	heather.price@uregina.ca	University of Regina
Hillary Lavelle	hlavelle@uvic.ca	University of Victoria
Holly Minshull	minshuh@students.wwu.edu	Western Washington University
Hollyann Duskin	duskinh@students.wwu.edu	WWU
Ira Hyman	Ira.Hyman@wwu.edu	Western Washington University
Jamal K. Mansour	jmansour@sfu.ca	Simon Fraser University
Janel Fergusson	janelf@psych.ubc.ca	UBC
Julio i Gigussoii	Janon & payori.ubc.ca	

Jen Kluftinger	jkluftinger@hotmail.com	University of British Columbia Okanagan
Jennifer Chapman	jmc10@sfu.ca	Simon Fraser University
Jesse Wear	wearj@students.wwu.edu	Western Washington University
Jessica Marriott	marriott@uvic.ca	University of Victoria
John Dema-ala	johndemaala@gmail.com	Kwantlen Polytechnic University
John Gaspar	jmg2@sfu.ca	Simon Fraser University
John McDonald	jmcd@sfu.ca	SFU School of Hard Knocks
Jonathan Wood	imwood84@uvic.ca	UVic
Jordan Barnes	jordanb@sfu.ca	Simon Fraser University
Jordan Rice	ricej9@students.wwu.edu	Western Washington University
Jordan Sanders	js18@uvic.ca	UVic
Jordanna Freeman	lyris@uvic.ca	University of Victoria
Joseph Pearson	joe@xofz.com	Western Washington University
Joshua Adams	adamsj26@wwu.edu	Western Washington University
Julie Chang	jchang_08@hotmail.com	?
Karen Lee	noirryu@telus.net	?
Karen Mangat	kmangat@sfu.ca	Simon Fraser University
Katrina Barber	katrinajbarber@gmail.com	UVic
Kayleigh Cutshaw	cutshak@students.wwu.edu	Western Washington University
Kelsey Thompson	kthomp@uvic.ca	University of Victoria
Kirby Q Maguire	kirbymaguire@gmail.com	University of Regina
Kristin Chong	kca66@sfu.ca	Simon Fraser University
Lecia Desjarlais	lecia.desjarlais@kwantlen.net	Kwantlen Polytechnic Úniversity
Maria Goldin	mg.goldin@gmail.com	Kwantlen University
Mario Baldassari	mjbldssr@uvic.ca	University of Victoria
Mark Blair	mblair@sfu.ca	Simon Fraser University
Mark J. Huff	mjhuff@ucalgary.ca	University of Calgary
Marta Unterschute	marta.unterschute@gmail.com	Western Washington University
Martin Yu	martincyu@gmali.com	UBC
Megan Richardson	megan.richardson3@kwantlen.net	Kwantlen Polytechnic University
Megan Yim	meganyim@uvic.ca	UVic
Melissa Hendry	mch5@sfu.ca	SFU
Michael Masson	mmasson@uvic.ca	University of Victoria
Michelle Crease	mlcrease@psych.ubc.ca	University of British Columbia
Michelle Dean	michelle.dean@kwantlen.net	Kwantlen Polytechnic University
Murray Singer	m_singer@umanitoba.ca	University of Manitoba
Natalie Therrien	natalie.therrien@gmail.com	University of Regina
Natasha Pestonji	natasha.pestonji@psych.ubc.ca	UBC
Nicole Kim	n_kim@sfu.ca	Simon Fraser University
Peter Graf	pgraf@psych.ubc.ca	University of British Columbia
Priyal Patel	ppatel3292@gmail.com	Student (Volunteer)
Ragav Kumar	rkain101@gmail.com	Kwantlen Polytechnic University
Roberta Prattico	rpa4@sfu.ca	Simon Fraser University
Ryan Fitzgerald	ryan.fitzgerald.24@gmail.com	University of Regina
Samantha Clark	sammiclark.sep@gmail.com	?
Sara Davis	daviss@ucalgary.ca	University of Calgary
Sarah Boorman	seboorman@hotmail.com	?
Sarah Hutchison	smh@uvic.ca	University of Victoria
Scott Jacobsen	Scott.D.Jacobsen@gmail.com	Kwantlen Polytechnic University
Sheila Dashtestani	sheila.dashtestani@hotmail.com	Western Washington University
Sol Sun	sol.sun@student.ufv.ca	University of the Fraser Valley
Stefan Bourrier	scbourrier@gmail.com	University of Victoria
Steve Lindsay	slindsay@uvic.ca	UVic

Tanjeem Azad	tazad@uvic.ca	University of Victoria
Tanya R Jonker	trjonker@uwaterloo.ca	University of Waterloo
Taylor Klein	kleint5@students.wwu.edu	Western Washington University
Terry Lin	tlin23@uvic.ca	UVic
Theresa Kisko	Theresa.Kisko@uleth.ca	University of Lethbridge
Thomas Spalek	tspalek@sfu.ca	Simon Fraser University
Tiffany Denchfield	tiffdench@gmail.com	Western Washington University
Tina Huang	hsttina@interchange.ubc.ca	UBC
Todd Haskell	todd.haskell@wwu.edu	Western Washington University
Tony Bui	tonyb@sfu.ca	Simon Fraser University
Tony Marley	ajmarley@uvic.ca	University of Victoria
Tony Nguyen	tynguyen@interchange.ubc.ca	UBC
Trishia Coburn	tcoburn@sfu.ca	Simon Fraser University
Victoria Kling	torikling@hotmail.com	SFU
Vivian Qi	qhongyua@sfu.ca	Simon Fraser University
Zorry Belchev	zeb@sfu.ca	University of British Columbia

## **Notes**

Thenk you for the dies NOMOARA 2040
Thank you for attending NOWCAM 2012.

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