

Science Atlantic Atlantique

*37th Annual Science Atlantic
Undergraduate Psychology Conference*

May 7 - 8, 2013

Halifax, Nova Scotia

Program & Abstracts



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Volunteers

Davey Chafe

Kaleigh Cole

Katelynn Carter-Rogers

Michael Coady

Jonathan Dixon

Miriam Eid

Todd Floyd

Alisha Hiscott

Leslie Hogg

Mitchell Hunt

Krystal Lariviere

Aleka MacLellan

Samantha MacLeod

Tyra McFadden

April Scheller

Erin Sheppard

Corrine Walsh

Julie White

Schedule at a Glance

Tuesday, May 7, 2013

3:00 – 5:00 pm

Registration (Sobey Building Foyer – SB on Campus Map)

5:00 – 7:00 pm

Faculty Representatives' Meeting (Sobey 159 – SB on Campus Map)

7:00 – 10:00 pm

Welcome Reception (Gorsebrook Lounge, O'Donnell Hennessey Student Centre – SC on Campus Map)

Pizza Party and Social Activities

Wednesday, May 8, 2013

7:30 – 8:45 am

Breakfast & Early Morning Registration (O'Donnell Hennessey Student Centre Cafeteria – SC on Campus Map)

8:55 – 10:15 am

Oral Presentations, Session 1
(Loyola 178 – LA on Campus Map, Sobey 255, and Sobey 260 – SB on Campus Map)

10:15 – 10:30 am

Nutrition Break (Loyola Conference Hall 290 – LA on Campus Map)

10:30 am – 11:45 am

Oral Presentations, Session 2
(Loyola 178 – LA on Campus Map, Sobey 255, and Sobey 260 – SB on Campus Map)

Wednesday, May 8, 2013 continued...

11:45 – 1:00 pm

Lunch (O'Donnell Hennessey Student Centre Cafeteria – SC on Campus Map)

*Please note. Lunch ticket will be provided.

1:00 – 3:15 pm

Poster Session (Loyola Conference Hall 290 – LA on Campus Map)

3:15 – 3:30 pm

Nutrition Break (Loyola Conference Hall 290 – LA on Campus Map)

3:30 – 4:30 pm

Oral Presentations, Session 3

(Loyola 187, Loyola 171 – LA on Campus Map, and Sobey 260 – SB on Campus Map)

6:00 – 7:00 pm

Faculty Representatives' Meeting
(Loyola 187 – LA on Campus Map)

7:00 – 9:00 pm

Banquet & Keynote Address
(Loyola Conference Hall 290 – LA on Campus Map)

Message from the Dean of Science

Dear Psychology Delegates,

On behalf of the University, I would like to welcome all of you to the 37th Annual Science Atlantic Undergraduate Psychology Conference. We are extremely proud to have the opportunity to host this conference at Saint Mary's University this year, and I hope that you will all have a wonderful experience. Psychology is a challenging and competitive field, and research expertise is a vital skill to have. By participating in research, and presenting it in venues such as these, you are giving yourselves an excellent advantage for your futures. I wish you the best at this Conference, and as you move forward into your careers in Psychology.

Steven M. Smith

Dean of Science

Professor of Psychology

Saint Mary's University

Message from the Faculty Organizer

On behalf of the faculty, staff, and students of the Psychology Department, welcome to Saint Mary's University. We are happy to be hosting the 37th Science Atlantic Undergraduate Psychology Conference.

The conference offers a unique opportunity for student researchers to present their work to faculty and fellow students from every province in Atlantic Canada. As participants, we all get to take in quality oral and poster presentations covering an extraordinary range of psychological research. Also, if history is any indication, I can almost guarantee that we will all have lots of fun!

I wish to acknowledge the financial support of our institutional, community, and corporate sponsors. Your support is invaluable. On a more personal note, many thanks to all the volunteers, judges, chairs, folks at the registration table, 'runners', the team of 'swag bag' stuffers, etc. This event doesn't happen without you. Finally, I want to extend a most sincere thank you to my many friends who fielded my numerous emails and phone calls prior to the actual event. Your expertise and guidance was greatly appreciated.

David Bourgeois

2013 Science Atlantic Psychology Conference Faculty Organizer

Invited Keynote Speaker



Jonathan White, PhD

Media Psychologist

Jonathan White proposes that two of the most underestimated forces shaping our lives are (1) the way we tell our own story and (2) the stories we experience through media (including the Web, TV, ads, books, film, and mobile devices). As a media psychologist, writer, and lecturer, he lives and teaches his philosophy about shaping and choosing our stories wisely, while writing and producing media designed to have positive psychological effects. At 32, he has created an award-winning documentary, earned two undergraduate and three graduate degrees, started two web-based companies, kitesurfed on four continents, and bicycled from the top to the bottom of Africa. Strictly due to his ongoing research on how our stories create our reality, Dr. White may tend to seem a little uncertain about whether he is awake, dreaming, or just making it all up.

Conference Awards

Science Atlantic Undergraduate Research Award

(Formerly the NSERC Representatives' Undergraduate Student Award, 2004-2012). The Science Atlantic Undergraduate Research Award replaces the NSERC Representatives' Undergraduate Student Award which ceased after the national NSERC regional representative program ended.

The award (which can be split into an oral award and a poster award) is presented to the student or students giving the best research presentation(s) at an annual Science Atlantic conference. A total of \$400 is available for each conference and can be allotted to presenters as conference organizers determine. The award may be split into multiple prizes at the discretion of the judging committee.

Karen Nicholson Award in Neuropsychology

The Karen Nicholson Award in Neuropsychology is presented annually for the best Neuropsychology undergraduate presentation (oral or poster) at the Science Atlantic Psychology Conference. Preference will be given to presentations dealing with human neuropsychology. The award is a \$100 cash prize. By accepting the prize, the winner agrees to have his or her name, presentation title, and abstract provided to the donor.

Science Atlantic Undergraduate Science Communication Award

The Science Atlantic Undergraduate Science Communication Award is offered at each of the annual Science Atlantic-sponsored student conferences. The \$100 prize is awarded to the student who is best able to communicate a science topic to the general public. The award may be split into two prizes of \$50 each (one for an oral and one for a poster presentation) at the discretion of the judging committee.

For more detailed information about these awards, please go to <http://scienceatlantic.ca/awards/researchaward/>

<http://scienceatlantic.ca/awards/nicholsonaward/>

<http://scienceatlantic.ca/awards/scicommcspl/>

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Saint Mary's University

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Oral Presentation Sessions

Group 1A – Loyola 178: Cognitive

Chair: Anjali Daté, Saint Mary's University

- O1. Ralph Redden (Dalhousie University)
- O2. Kayla Beck (Memorial University)
- O3. Nicole Barry (Mount Allison University)
- O4. Brandon Slaney (Memorial University)
- O5. Jessica Keating (Mount Allison University)

Group 2A – Sobey 255: Social

Chair: Kate Calnan, Saint Mary's University

- O6. Liza Brechbill (Saint Mary's University)
- O7. Hayley Marrison-Shaw (Mount Allison University)
- O8. Leslie Hogg (Saint Mary's University)
- O9. Katelyn Waite (Saint Thomas University)
- O10. Kendra McLaughlin (University of New Brunswick)

Group 3A – Sobey 260: Sexuality and Psychology of Women

Chair: Lori Francis, Saint Mary's University

- O11. Ilisha French (Mount Allison University)
- O12. Stephanie Gauvin (Saint Mary's University)
- O13. Angela Priede (Saint Thomas University)
- O14. Shawn Seeley (Mount Allison University)
- O15. Kathleen Webb (University of New Brunswick)

Group 1B – Loyola 178: Cognitive and Sensation and Perception

Chair: Kim Robinson, Saint Mary's University

- O16. Timothy Wingate (Mount Allison University)
- O17. Kaitlin Baur (Mount Saint Vincent University)
- O18. Kathryn Malcom (University of New Brunswick)
- O19. Paul Sheppard (Memorial University)
- O20. Joel Eatmon (University of New Brunswick)

Group 2B – Sobey 255: Varia: Animal behaviour, substance abuse, personality, comparative, and sensation and perception

Chair: Kate Calnan, Saint Mary's University

- O21. Courtney Clarke (Memorial University)
- O22. Amanda Reidpath (Mount Allison University)
- O23. Lauren Morrissey (Saint Thomas University)
- O24. Shawn Blizzard (Mount Allison University)
- O25. Melissa Meade (Mount Allison University)

Group 3B – Sobey 260: Varia: Sports psychology, gambling, media psychology, clinical, and drugs and behaviour

Chair: Marcia Ozier, Saint Mary's University

- O26. Eric Feunekes (University of New Brunswick)
- O27. Lori O'Brien et al. (Mount Saint Vincent University)
- O28. Christine Babineau (Saint Thomas University)
- O29. Kaleigh Cole (Saint Mary's University)
- O30. Jennifer Fredericks (Crandall University)

Group 1C – Loyola 187: Neuroscience and Social

Chair: M. Katharine Berlinguette, Saint Mary's University

- O31. Amy Silver (Dalhousie University)
- O32. Melanie McGillivray (University of New Brunswick)
- O33. Shawn Casey (University of New Brunswick)
- O34. Donika Shala (Saint Mary's University)

Group 2C – Loyola 171: Developmental

Chair: Debra Gilin-Oore, Saint Mary's University

- O35. Julia Kontak (Mount Allison University)
- O36. Sarah Caldwell (Memorial University)
- O37. Venus Bali (Mount Saint Vincent University)

Group 3C – Sobey 260: Psychology and Law and Clinical

Chair: Anjali Daté, Saint Mary's University

- O38. Nicole Adams (Dalhousie University)
- O39. Emily Ready (Saint Thomas University)
- O40. Holly Chapadeau (Saint Mary's University)
- O41. Sebastian Pacey-Smith (University of New Brunswick)

Abstracts: Oral Presentations

Group 1A – Loyola 178

Chair: Anjali Daté, Saint Mary's University

8:55 am Review of rules for presentations

9:00am

O1. Ralph Redden (Dalhousie University)

Inhibition of Return: Two mechanisms investigated using speed-accuracy trade-off functions

Inhibition of return (IOR) can be described as an inhibitory aftermath of orienting seen in the form of slower response times in the direction or location that was previously attended. First discovered by Posner and Cohen (1984) the phenomenon has been shown to exist in two mutually exclusive forms (Taylor & Klein, 2000): an effect on motoric processes (an output form) and an effect on attentional/perceptual processes (an input form). The factor proposed to modulate which form of IOR is observed is the state of activation of the oculomotor system: output based when the system is not suppressed; input based when it is suppressed. Whereas Chica, Taylor, Lupianez, and Klein (2010) discovered that when caused by an eye movement to an uninformative peripheral cue, the delay in responding to targets at the originally cued location (the IOR effect) was accompanied by more accurate responding. By generating speed-accuracy tradeoff functions using response-signal methodology as proposed by Wickelgren (1977) and implemented by Ivanoff and Klein (2006) and Zhao, Heinke, Ivanoff, Klein and Humphreys (2011) under conditions of eye monitoring, we determined the output form of IOR is characterized by a criterion shift, as compared to the input form, which is characterized by a change in performance.

O2. Kayla Beck (Memorial University)

Does Operation Span Score Based on Type of Recall, Distractor Placement, and List Length Predict Performance as well as an Original Operation Span Score?

The Operation Span task, a complex span task associated with working memory, is comprised of a distractor task and a main task of remembering a list of items. The Continual Distractor task, associated with long-term memory, is very similar to the Operation Span task in that it alternates a distractor with the presentation of a to-be-remembered word; however, there are a number of differences between the two tasks that suggest they only test their respective memory system. Two experiments were conducted to assess whether these differences were sufficient to make these two complex span tasks quantitatively different by comparing how well each modified Operation Span task predicted performance on a Backward Digit Span task. Experiment 1 showed that the placement of the distractor task and the use of different recall methods did not affect the correlation between the two tasks. Experiment 2 found that performance on an Operation Span task with a fixed length also correlated with Backward Digit Span. Because these modifications controlled for the differences between the Operation Span and the Continual Distractor tasks and gave rise to similar correlations with the Backward Digit Span task, these results

suggest that recall method, distractor placement, and variable list length are probably just qualitative differences that do not influence the ability of the tasks to predict performance on other cognitive tasks. Therefore it is likely that Operation Span and Continual Distractor tasks are not measuring performance of separate memory systems, but something entirely different, such as the ability to do two things at once.

O3. Nicole Barry (Mount Allison University)

The Effect of Concussion on Episodic Autobiographical Memory Recall

The purpose of the current study was to investigate the effects of concussion on long-term episodic autobiographical memory. Specifically, the details participants could provide, the vividness of memories recalled, the completeness of memories recalled, and how easily memories recalled came to mind were investigated. Seventy-eight students from Mount Allison University participated; 45 previously concussed individuals and 33 non-concussed individuals completed a self-report questionnaire including two proxy measures of intelligence, a short-term memory component of the Sport Concussion Assessment Tool, a measure of episodic autobiographical memory, a concussion inventory, and a depression inventory. As predicted, it was found that controls provided significantly more detail than previously concussed individuals when recalling episodic autobiographical memories. The two groups did not significantly differ in terms of the vividness and completeness of memories, nor how easily memories came to mind. Severity and frequency of concussion(s) were not found to be significant predictors of episodic autobiographical memory deficits. Limitations and implications are discussed.

O4. Brandon Slaney (Memorial University)

Production and Memory: The Effects of Divided Attention at Encoding

Words that are produced (i.e., said aloud) have been shown to be better remembered than words read silently to oneself. This finding is entitled the production effect and it occurs as a result of the enhanced distinctiveness encoded into memory for items which are produced. In the current experiment participants studied a list of words in either a full or divided attention condition in order to assess the effect of divided attention on the production effect. It was shown that divided attention reduced overall recognition accuracy for items produced aloud as well as items read silently, as compared to full attention. However, the production effect occurred in both the full and divided attention conditions providing evidence that purposeful attention is not required to encode an item as distinct; rather the distinctive information associated with produced items is encoded automatically outside of purposeful attention.

O5. Jessica Keating (Mount Allison University)

The Behavioural Outcomes of Suggestion and Guided Imagination

False memory research has established that suggestion and imagination can induce false memories and autobiographical beliefs, and that these false autobiographical constructs can influence future behaviour. The present study was conducted to determine whether false beliefs involving childhood food poisoning from eating spoiled yogurt would affect signing a petition to punish a negligent yogurt company. Ninety-six university undergraduates participated in two ostensibly unrelated experimental sessions in which they

were exposed to a yogurt-related sickness suggestion and guided imagination session, and then given the opportunity to sign a petition to punish a yogurt company whose yogurt had made many children sick. Contrary to expectations, it was found that those who believed the yogurt sickness event signed the petition fewer times than those who did not. The study's theoretical assumptions and methodological limitations are discussed, and directions for future research are suggested.

Group 2A, Sobey 255

Chair: Kate Calnan, Saint Mary's University

8:55 am Review of rules for presentations

9:00 am

O6. Liza Brechbill (Saint Mary's University)

University as Narrative Therapy: The Reconstruction of Dominant Self Narrative Through Post-Secondary Education

This study was developed to understand how some women experience post-secondary education. Conducted under the postulation that University acts as a type of narrative therapy, this research asserts that post-secondary education gives some people the ability to deconstruct the way they talk about themselves and by using their education they are then able to see the world, and therefore their position within it, differently. Participants were recruited based on three criteria: self-identification with the female gender, being of the first generation in a family to attend a post-secondary institution, and having felt that their university experience has, in some way, been transformative. In depth interviews were conducted with participants to discuss their stories concerning their time at University and in what ways they have used their education to develop their identity.

O7. Hayley Marrison-Shaw (Mount Allison University)

Why the reluctance to refer to a community-based hospice palliative care volunteer program? A pilot study and survey.

In order to understand the low number of referrals to hospice palliative care volunteer programs two studies were conducted. Study 1 asked four key informants – a social worker, a volunteer coordinator, a nurse manager and a family physician – to identify potential barriers or obstacles that contributed to a lack of (or late) referrals as well as possible enablers that might encourage more (or more timely) referrals. Based on the results of Study 1, a questionnaire (the Perceived Barriers and Enablers to Hospice Palliative Care Volunteer Programs Questionnaire) was developed and distributed to 13 volunteer coordinators of community-based hospice palliative care volunteer programs in New Brunswick and Nova Scotia. The coordinators were asked to: 1) rate the extent to which they perceived 18 items to be barriers to referrals; 2) rate the extent to which they perceived 12 items to be enablers to referrals; and 3) describe additional barriers and enablers. The most-reported barriers (e.g., patient or family have too many people coming in and out of their home) and enablers (e.g., encourage families and health care providers to recognize caregiver burnout and the value of utilizing a volunteer) were identified. Based on

the results of both studies a “Tips for Referrals Sheet” was created for hospice palliative care volunteer coordinators, highlighting the main findings of the study.

08. Leslie Hogg (Saint Mary’s University)

Effect of Mental Stigmas on Social Interactions

The word "stigma" originates from the ancient Greeks and is derived from a word meaning to "mark someone". Stigma's surrounding mental illness are extremely prevalent in today's society, and can be very harmful psychologically, physiologically, socially, and economically to those suffering from a mental illness. This study will be comparing the various levels of stigma between: schizophrenia, bi polar, depression and alcoholism. The aim of this study is to demonstrate the effect (negative evaluations and behaviours) public stigmas have on social interactions for individuals with a mental illness. Also, based on the perceived severity and controllability of schizophrenia and alcoholism that they will be rated the most negatively overall. Results indicated that there was a negative correlation between bipolar and depression; thus as the stigma surrounding these illnesses increased, the likelihood of socializing with these individuals decreased. Finally, it was confirmed that schizophrenia and bipolar held the strongest stigmas within the four conditions.

09. Katelyn Waite (Saint Thomas University)

Police Knowledge and Beliefs on Eyewitness Accuracy

Erroneous eyewitness testimony is the leading cause of wrongful convictions in the United States. Inaccurate eyewitness testimony has been found to be, either completely or partially, responsible for 75% of the known wrongful convictions in the United States. Psychological research has sparked the evolution of methods and procedures for the improvement of eyewitness accuracy through the actions of members of the criminal justice system. My research examines how knowledgeable Canadian police officers are on the subject of eyewitness testimony and its accuracy. This study has also reviewed the training that Canadian police officers have received in lineup procedures, interview processes, and interrogation procedures. It is essential that the knowledge and training of Canadian police officers be understood, as police are the first members of the criminal justice system to come in contact with eyewitnesses of serious crimes. In Canada, eyewitness testimony is currently being utilized as evidence in criminal courtrooms and therefore this evidence, and how it has been handled by all members of the criminal justice system, can impact the verdict of a trial. Results indicate that Canadian police officers scored 61.1% on the knowledge portion of the questionnaire, and a great amount of variability in training of officers across Canada was found.

O10. Kendra McLaughlin (University of New Brunswick)

The effects of exposure to sexism on cognitive performance: The role of shifting in contingencies of self-worth

Benevolent sexist attitudes purport that women are pleasant but physically and psychologically weak (Glick & Fiske, 1996). These messages have been found to have detrimental effects on women's cognitive performances partly because they reduce women's sense of competence (Dardenne, Dumont, & Bollier, 2007; Dumont, Sarlet, & Dardenne, 2010). We hypothesised that the effect of benevolent sexist messages on women's performance is, at least in part, due to the impact of these messages on women's contingencies of self-worth (Crocker & Wolfe, 2001). Contingencies of self-worth, simply put, are bases of self-esteem. Female students (N = 69) were randomly assigned to read a benevolent-, hostile-, or non-sexist message, and then completed measures of contingencies of self-worth and performed an intellectual task. Although we did not observe any significant effects of sexism, we found that female students who identified with their student role were significantly more likely to base their self-worth on both appearance and academic competence. In addition, female students who identified with their identity as a woman were significantly more likely to base their self-worth on their academic competence. Basing self-worth on academics was positively associated with better performance on an intellectual task. Implications of these findings are discussed.

Group 3A, Sobey 260

Chair: Lori Francis, Saint Mary's University

O11. Ilisha French (Mount Allison University)

Consumption of male- versus female-centric pornography and its relationship to sexual attitudes and behaviors in young adults

The effects of male- versus female-centric porn were investigated in a two part study. Past research has shown that male-centric porn is related to negative affect and relational discord while female-centric porn is related to positive affect and increased sexual behavior in women. In Phase 1, 375 participants filled out an online questionnaire examining porn consumption. In line with predictions, participants reported consuming porn with more male-centric than female-centric features and accessing porn via the internet more than any other mode of access. As expected, those who watched porn with more female- compared to male-centric features reported more positive effects of porn consumption on attitudes toward the opposite gender, and their sex lives. Unexpectedly, there was no difference between groups for the effects of porn type on sexual satisfaction. In Phase 2, 35 females from Phase 1 participated in a lab study. Participants viewed either a male- or female-centric porn video. Counter to predictions, pre- and post-video assessments of self-reported sexual arousal and mood, and a during-film "arousometer" revealed no differences between conditions. As expected, women in the female-centric condition rated the videos more positively and had more sexual behaviours in the 48 hours after the study than women in the male-centric condition. These findings provide evidence that male- and female-centric porn types are related to sexual behaviour and attitudes. Future research investigating the association between increased sexual behavior in response to female-centric porn and sexual satisfaction is warranted to fully understand the implications of porn content for sexual well-being in young adults.

O12. Stephanie Gauvin (Saint Mary's University)

A Study of the Independent Contribution of Partner Facilitative Responses to Sexual Concerns and Sexual Satisfaction

Background: Recent research suggests that how a partner understands and responds to an individual's sexual complaints or costs is related to less distressing sexual interactions and greater sexual satisfaction (Fallis, Purdon, & Rehman, 2012; MacNeil & Byers, 2005, 2009; Rosen et al., 2012). However, what types of partner responding enhance sexual satisfaction in the face of sexual costs remains unclear. Empathic affect by partners in response to sexual costs may be sufficient to maintain sexual satisfaction by improving intimacy (Fallis, Purdon, & Rehman, 2012). Others argue that partner empathy also contributes to actual behavioural changes in couple interactions resulting in greater sexual satisfaction, but have not investigated how partners respond to sexual complaints directly (MacNeil & Byers, 2005; 2009). Facilitative partner responding, which includes positive behavioural responses during or after a sexual interaction, was associated with increased sexual satisfaction in women with vulvo-vaginal pain but has not been studied in non-clinical samples (Rosen et al., 2012). Research Questions: After accounting for empathic responding to both global and sexual costs, does facilitative partner responding to sexual costs make a significant, independent contribution: (1) to the prediction of sexual satisfaction? (2) to the relative level of sexual rewards to costs? Results: Facilitative responding was found to be a significant and unique predictor of sexual satisfaction and of the relative level of sexual rewards to costs ($\beta=.24, p<.001$; $\beta=.36, p<0.001$, respectively), after controlling for partner empathy in response to both global ($\beta=.07, p=.292$; $\beta=.16, p<.05$) and sexual costs ($\beta=.40, p<.001$; $\beta=.13, p<0.05$). Implications for future research will be discussed.

O13. Angela Priede (Saint Thomas University)

He Came, She Feigned: Women's Accounts of Pretending Sexual Pleasure

Taking a discourse analytic approach, this research utilized semi-structured interviews to explore the ways in which women account for faking sexual pleasure and/or orgasm. Building on previous research conducted by Stelzl and LaFrance (2011) looking at young women's accounts of pretending sexual pleasure, this research investigates the experiences of women who are slightly older. Participants for this research were 7 women, aged 30-43 years, who have engaged in consensual heterosexual sexual intercourse, and who have been sexually active for a minimum of one year. While faking sexual pleasure and orgasm is a fairly common occurrence among women (Darling & Davidson, 1986; Muehlenhard & Shippee, 2010), few studies exist regarding this phenomenon. Drawing from contemporary feminist constructs, this research explores the social meaning that women attribute to the act of faking sexual pleasure and discusses the implications of those meanings for women's identities. The findings from this study provide insight into the ways that discourses of sexuality serve to position women in various ways within the context of heterosexual sexual encounters.

O14. Shawn Seeley (Mount Allison University)

Assessing the Effects of Personally Relevant and Non-Personally Relevant Acute Stressors on Male Sexual Arousal

Stress is considered to be an important factor in the development and persistence of sexual dysfunction in males. The goal of the present study was to replicate the methodology of a previous study that examined the effects of personally relevant and non-personally relevant acute stressors on sexual arousal in females. Participants were heterosexual, non-virgin males without sexual difficulties, sampled from the Mount Allison University community. The sample consisted of 13 Caucasian males with a mean age of 20.78 (SD = 2.4). All participants were run in both a control and stress condition. In the control condition, questionnaires were completed before the presentation of erotic video stimuli. In the stress conditions, participants were either shown a violent clip from the movie *Bully*, or completed a stressful task (The Trier Social Stress Task). Psychological and physiological responses were taken before, during, and after the presentation of erotic video stimuli. Results revealed that participants reported the personally relevant stressor to be significantly more stressful than the non-personally relevant stressor. Self-reported physical and mental arousal was significantly lower following the personally relevant stressor. Mental sexual arousal reported contiguously with erotic video stimuli was significantly higher following the non-personally relevant stressor than the personally relevant stressor. These results suggest that personally relevant stressors are more damaging to male psychological and physiological arousal than non-personally relevant stressors. Future researchers should consider expanding the size and demographics included in their studies to test the robustness of these effects.

O15. Kathleen Webb (University of New Brunswick)

Giving Birth in New Brunswick: How the Medical Institution Shapes the Experiences of Women

The medicalization of childbirth has been a topic of lengthy debate. Most literature suggests that the medical context influences women's ability to exercise agency over their birthing experience (Janssen et al., 2009; Parry, 2008). Research in this area tends to focus on the negative encounters women have with the medical system, such as patronizing treatment (Wallace & Chason, 2007), and women feeling as though their bodies were treated mechanically (Rúðólfssdóttir, 2000). Some positive aspects of medicalised birth have been reported, however, where social support played an important role (e.g., Fisher et al., 2006). Thus, the purpose of the present study is to shed light on women's childbirth experiences in the medicalised context in New Brunswick. Semi-structured interviews were conducted with 20 women; 6 interviews took place in 2012-2013, and 14 in 2006. The Psycho-Social Ethnography of the Commonplace (PSEC; Poulin & Gouliquer, 2005) methodology was utilized to examine how institutional practices benefit the medical institution while complicating the lives of women giving birth. Two "Organisational Moments" are presented and discussed: Breastfeeding Support and Administering Medication. The data indicates that the breastfeeding support provided to women is inadequate and fragmented. Additionally, the process associated with how medication is administered to birthing women needs to be better adapted. The findings enhance our understanding of policies and practices that are influencing women's childbirth recollections suggesting specific changes: More trained staff specializing

in breastfeeding techniques is needed. Information on the risks and side effects associated with drugs need to be given to women more effectively.

Group 1B, Loyola 178

Chair: Kim Robinson, Saint Mary's University

O16. Timothy Wingate (Mount Allison University)

Procrastination & Task Delay: Why Tomorrow is Always the Busiest Day of the Week

The current study assessed the validity of Steel and König's (2006) Temporal Motivation Theory for predicting procrastinatory behaviours in a sample of undergraduate students (N = 88). This was the first empirical study to address the effect of different delays between task assignment and due date, as half of participants were given one week to complete the target task (short delay condition) and half were given one month (long delay condition). Following Steel and König's suggestions, information about participants' impulsivity, distractibility, and self-control were collected, along with participants' intended time of task completion and more general personality measures. Results indicated that personality measures did not predict procrastinatory behaviours. However, participants who were higher on conscientiousness and lower on distractibility reported significantly later times of intended task completion in the long delay condition. Theoretical explanations of the present findings as well as directions for future research are discussed with respect to possible limitations of Temporal Motivation Theory.

O17. Kaitlin Baur (Mount Saint Vincent University)

Aesthetic Experience: Effects of Training, Absorption & Emotional Response

Art theory proposes that the use of aesthetic perception--an interaction between formal analysis and personal reaction--is a necessary component of art viewership, but are people actually using it? This study examined the effects of formal art training and the disposition to become lost in experience (i.e., absorption) on the use of aesthetic perception. A total of 170 participants viewed and described a series of controversial and non-controversial artworks, and reported their emotional response to each piece. Written responses were analyzed for references indicative of 3 perceptual strategies: 1) formal analysis, which is primarily task-oriented, 2) personal reaction, which is primarily based on opinions and emotions, and 3) aesthetic engagement, which is largely a combination of the first two strategies. Task-oriented perception (focusing only on formal analysis) was the predominate method of describing artworks, regardless of level of training. Training and absorption did not have an interactive effect on determining the specific perceptual strategy utilized. However, they did interact with respect to emotional responses to the artworks. The results and their implications for aesthetic psychology and fine art disciplines are discussed.

O18. Kathryn Malcom (University of New Brunswick)

Stereotype Beliefs and Gender Differences in Math and Spatial Performance

The aim of the present study was to examine whether beliefs about math and spatial stereotypes are related to performance and confidence on math and spatial measures. One hundred and twenty nine undergraduate students (50 males, 79 females) completed a math test, Guay's Visualization of View's (GVV) test, and reported their overall confidence in their performance on each test. Participants also completed a post-test questionnaire, indicating which gender they believed would perform better (males better, females better, neutral) after both tests were completed. Gender differences in favour of men were obtained for performance and confidence on both tests. Results also indicated a significant interaction between sex and math belief on men's math performance, with men who reported that they believed that men would perform better than women on the math test performing significantly better than those who reported gender neutral beliefs. Math beliefs made no difference on women's performance. Results are discussed in terms of explanations of gender differences in math and spatial performance, as well as their implications for the concept of stereotype threat.

O19. Paul Sheppard (Memorial University)

Comparison of Absolute Thresholds in the Human Senses of Vision, Audition, Touch, and Pain

Although some previous experiments report higher-level interactions among the human senses, there is little work comparing the basic aspects of sensory functioning. In the present study, absolute thresholds (ATs) are compared between vision (visual acuity, contrast sensitivity, and temporal vision), audition, touch, and pain (pressure and heat) in 46 adults (ages 20-55). Results show that in addition to the expected relationships within senses (e.g. visual acuity and contrast sensitivity) there were some surprising relationships between senses, such as correlations between contrast sensitivity and audition, temporal vision (under scotopic conditions) with pressure-induced pain, heat-induced pain tolerance and contrast sensitivity, and touch sensitivity and visual acuity. The significant correlation between contrast sensitivity and audition was of particular interest as the ATs for these senses have similar well-defined graphical functions (the contrast sensitivity function [CSF] and audibility curve, respectively). The results from this study strongly suggest that neural interactions between different sensory modalities exist within the central nervous system. Both the relationships between senses and the suggestion of shared higher-processing centres may be of clinical value in the future.

O20. Joel Eatmon (University of New Brunswick)

How do influences of selective attention vary over time?

Recent research has demonstrated that the allocation of visual attention can influence how we emotionally evaluate a given stimulus. This effect, known as distractor devaluation, can be described as the tendency to evaluate distracting stimuli (that are ignored or inhibited) more negatively than attended stimuli. Researchers, however, have not yet determined whether this effect is transient (i.e., lasts only a few seconds) or long lasting. In the present study, we examined how the time frame between when stimuli are originally encountered and when they are reencountered influenced the degree to which items are

devalued. First, we presented participants with an attentional task in which they viewed two stimuli (Mondrians; abstract patterns of intersecting figures and colours) and indicated the location of the predetermined target Mondrian. After participants completed the attentional task, there was a random interval of 1150 ms, 1900 ms or 3400 ms before the evaluation stimuli appeared. Results show that ignored stimuli were evaluated negatively compared to attended stimuli and that the size of this effect increased as the inter-stimulus interval increased.

Group 2B, Sobey 255

Chair: Kate Calnan, Saint Mary's University

O21. Courtney Clarke (Memorial University)

Coat color and Behavior in Beagles: Do owners of bi-colored dogs report more behavior problems?

Anecdotal evidence suggests that local bi-colored Beagle dogs may experience more behavior problems than their tri-colored counterparts. As a relationship between coat color and behavioral differences, particularly for aggression, has been found for some other dog breeds, the present study hypothesized that a relationship would exist between reported behavior problems and 1) Beagle coat color, 2) Beagle birthplace, 3) how the dog was obtained (purchased vs. adopted), and 4) whether the dog was identified as purebred or mixed-breed. Two self-report questionnaires, including the Canine Behavioural Assessment and Research Questionnaire (C-BARQ), were used to assess these relationships. For a total of 166 beagles (first questionnaire) and 58 beagles (first questionnaire and C-BARQ), the results indicated that neither coat color nor how the dog was obtained were related to reported behavior problems or C-BARQ sub-scale scores. Newfoundland-born Beagles compared to Beagles born elsewhere, and Newfoundland Beagles described as purebred compared to those described as mixed-breed beagles, scored significantly higher on multiple C-BARQ sub-scales, including Stranger-directed Fear and Separation-related problems, respectively. In addition, sex differences were found on the C-BARQ sub-scales; females scored significantly higher on Stranger-directed Fear and males scored significantly higher on Separation-related Problems. It is possible that Newfoundland Beagles are a unique breeding population, with some behavioral differences that result from gene X environment interactions.

O22. Amanda Reidpath (Mount Allison University)

Associations Between Substance Use Risk Profiles and Heavy Episodic Drinking Among University Students

Heavy alcohol consumption is common and often problematic among undergraduate students. Personality factors such as anxiety sensitivity, hopelessness, impulsivity, and sensation seeking have been found to predict heavy episodic drinking (HED). Recently, these constructs were combined in a measure called the Substance Use Risk Profile Scale (SURPS). While the SURPS subscales have been found to predict HED, little is known regarding its utility for predicting other factors related to HED. The present study seeks to examine the relation between the SURPS personality profiles and the frequency of past 7-day HED, the amount of alcohol consumed during HED sessions, beliefs about peer perceptions of HED, and negative situations in which HED occurs. A sample of 112 undergraduate students completed a series of

questionnaires assessing the aforementioned variables. Results showed that although the SURPS was not a significant predictor of past 7-day HED, the subscale of Sensation Seeking was a significant predictor of this variable. The SURPS subscales Anxiety Sensitivity, Impulsivity, and Sensation Seeking were found to be significant predictors of the greatest amount consumed during an HED session. Only the SURPS subscale Impulsivity predicted beliefs about peer perceptions of HED, while all SURPS subscales were found to predict negative situations related to HED. These results suggest that the SURPS is a valid measure for predicting HED and its related factors in a university population.

O23. Lauren Morrissey (Saint Thomas University)

Agentic & Affiliative Extraversion: A Psychometric Study

Extraversion is a widely studied personality trait consisting of two separate constructs; agentic extraversion (AG) and affiliative extraversion (AF). AG reflects assertiveness, social dominance, and goal oriented behaviour. AF reflects warmth, affection, and the value of interpersonal bonds. The validity of a new questionnaire measuring AG and AF was evaluated. Results of the new questionnaire were compared to the EPQ-R and the BIS/BAS Scale. In addition, AG and AF was compared to leisure activities and drug use to determine if the questionnaire could be used to predict leisure and drug use. Both AG and AF correlated with extraversion, and with different aspects of the BAS. It was expected that AG and AF would relate to different leisurely pursuits; however, leisure activities with correlations to each construct were similar. Finally, it was expected that due to the different underlying systems AG would correlate with use of stimulants, and AF with opiates; however, alcohol was the only significant correlation. While the questionnaire demonstrates some construct validity, more refinement of the measure is necessary to strengthen some aspects of construct validity.

O24. Shawn Blizzard (Mount Allison University)

D-amphetamine does not differentially affect wheel running rates when running serves as an operant and as a consequent behavior

Eleven female Long-Evans rats served as subjects in a study to determine the effect of d-amphetamine on wheel running rates when running was arranged as an operant and as a consequent behaviour. Within a session, subjects were exposed to alternating components in which lever pressing on a VR10 schedule produced the opportunity to run for 15 revolutions in one component and running 15 revolutions (FR15) schedule produced a drop of 15% (w/v) sucrose solution in the other component. Intraperitoneal injections of 0.0, 0.25, 0.50, 1.00 and 2.00mg/kg doses of d-amphetamine were administered prior to each session. Results showed that wheel running rates decreased as dose increased; however, there was no evidence that the effect varied with the functional role of running. Interestingly, with increasing dose the time to complete the consequent wheel running component increased to a significantly greater degree than did the operant wheel running component. These results were discussed in terms of the possibility that the interaction of dose and functional role may vary with the age of the rats.

O25. Melissa Meade (Mount Allison University)

Multisensory Integration: Effect of Congruence and Similarity in Visuo-haptic Object Recognition

This study aimed to better understand the integration of visual and haptic information in the representation of objects. A set of eight novel objects were presented to participants using a custom built manipulandum that allows the simultaneous presentation of two objects at a time: one visually and one haptically. Participants first learned to recognize each objects in one of three learning conditions: visual learning, haptic learning, or bi-modal learning. In the experimental phase, two objects were simultaneously presented. In half the trials, the two objects were identical (congruent trials), and in the other half they were different (incongruent trials). Participants were asked to name the top object (visual) or bottom object (haptic). Error data from the learning phase suggests that performance is driven by learning condition: participants made fewer errors when asked to identify objects in the same modality they were learned in. Also, visual and haptic identification were driven by similar processes: participants confused similar objects more often than dissimilar objects, independently of learning and testing conditions. Importantly, reaction time data from the experimental phase revealed that presenting incongruent information slowed down the haptic identification of objects, but not the visual identification of objects: indicating dominance for visual information.

Group 3B, Sobey 260

Chair: Marcia Ozier, Saint Mary's University

O26. Eric Feunekes (University of New Brunswick)

The Last Kilo: Examining Rapid Weight Loss and its Effect on Mood Disturbance in Wrestlers Preparing for a Competition

Rapid weight loss (RWL) or weight cutting as it is known by most athletes has been a focus of study for both its physiological and cognitive effects. The term RWL refers to when athletes lose significant amounts of body mass, ranging from one percent to more than five percent of total mass over a short period of time (e.g. 1-3 days). This study focused on mood disturbance and ego-depletion in those undergoing RWL. Our hypotheses were that 1) Mood disturbance would rise as participants lost mass, and 2) participants would display more symptoms of ego-depletion as they lost mass. To measure the effect we conducted a single-subject study over a period of 6 weeks (8 collection sessions). Participants were 11 members (9 male, 2 female) of a Canadian university wrestling team preparing for the Atlantic University Sport Championship. A demographics and weight loss style questionnaire was administered at the first session, all sessions included a daily habits questionnaire, the Profile of Mood States, and a timed crossword puzzle. Results from this study show that mood disturbance is linked with changes in mass such that when participants lost mass their mood disturbance rose and when they gained mass mood disturbance dropped. There were indications that ego-depletion was affected by mass for some participants but the effect was not consistent. The results show that when wrestlers undergo RWL their mood becomes more disturbed meaning they show higher levels of depression, confusion, anger, tension, and fatigue, and lower levels of vigor; this is not the ideal state for competition.

O27. Lori O'Brien, Sarah Fanning, Kaitlyn Baur, Shaunda Jesso, Lori O'Brien, Debbie Campbell, Natasa Mitrovic, Venus Bali, Shelagh Abriel, Marie-Louise Donohoe, Will Shead (Mount Saint Vincent University)

Chance wins versus losses as precursors to misunderstanding of randomness and gambling odds

Studies have linked increased gambling involvement to errors in thinking including superstitious beliefs, misunderstanding of odds and randomness, and biased attributions of random events. The exact nature of the relationship between gambling behaviour and these thinking errors remains unknown. It may be that individuals with erroneous cognitions are more prone to gamble. Alternatively, increased gambling may lead to more faulty cognitions. Furthermore, the specific outcomes of a gambling event may impact gambling cognitions and behaviour. Gambling beliefs may mediate gambling behaviour such that the outcome of a gambling event affects cognitions about how gambling works which, in turn, impacts gambling. This study examines whether the experience of a win or a loss on a gambling event impacts beliefs about gambling and understanding of odds and randomness. One hundred and fifty-three undergraduate students were entered into a draw with ostensibly unfavourable odds. However, the draw was manipulated so that approximately half the participants won and half lost. Next, participants completed questionnaires assessing beliefs about gambling and understanding of probability. Our hypothesis was that participants who won the gambling event would report more faulty beliefs about gambling as well as demonstrate a worse understanding of random chance. Significant findings related to gender, gambler status, and erroneous beliefs, in addition to experimental limitations and practical implications, are discussed.

O28. Christine Babineau (Saint Thomas University)

Psychiatry's 'Bible' in the Media Spotlight: Representations of the DSM in the New York Times, 1979-2012

Despite its significant position within western society, the development of the DSM and its expansion into the domain of more common experiences of distress has been widely contested. Though criticisms of the DSM may be widely available within the academy, the topic of whether these criticisms are disseminated within the public arena has yet to be explored. The purpose of the current study was to identify overarching themes and patterns of representation of the modern editions of the DSM (III-5). Specific attention was paid to representations of the DSM within America's foremost newspaper, the New York Times. Coverage in the year before, of and after the release of each modern edition of the DSM was included within the analysis. In the interest of including more recent coverage, the years 2009 to 2012 were also included. The method of analysis used was thematic analysis and specific attention was paid to the extent to which the media has partnered with psychiatry in its promotions of the merits of the DSM, whether representations were balanced and tone of representation over time. It was found that coverage of the DSM has increased over time and an overall shift in tone of representation of the DSM was also identified. Though initial coverage of the DSM focused on the merits of the document and promoted it as an authoritative text, there was a shift towards more frequent representations of criticisms and a troubling of the authority of the document over time. Implications of the ways in which the DSM is socially constructed within the media are discussed.

O29. Kaleigh Cole (Saint Mary's University)

Shame-based versus Guilt-based Post-traumatic stress disorder, symptom severity, counselling expectations, and outcomes in therapy

This study investigates Post-traumatic Stress Disorder, symptom severity, counselling expectations, and outcomes in therapy. The sample consisted of 23 ex- Canadian Forces Military personnel (Veterans). Shame-based PTSD is linked with negative evaluations about oneself; guilt-based PTSD is linked with negative evaluations about one's behavior. It was hypothesized that shame-prone individuals would experience more severe symptoms of Post-traumatic Stress Disorder, have maladaptive expectations of counselling, and thus expect less positive outcomes from therapy. It was also hypothesized that guilt-prone individuals would exhibit more ownership, positive attitudes, and positive behaviors towards therapy, have less severe symptoms, greater counselling expectations, and thus expect more positive outcomes from therapy. Specifically, this study aimed to make a distinction between shame-based and guilt-based PTSD. Analyses of variance and post hoc tests were conducted. Results indicate that guilt and PTSD were statistically significant, while shame was not. Specifically, severe PTSD and guilt were statistically significant, while moderate and extreme were not. Furthermore, client attitudes and behaviours towards therapy were examined. Moderate and extreme PTSD showed significance in terms of responsibility, that is, how much the participant expects to take responsibility for their own outcomes in therapy, while severe PTSD did not. There were no significant findings in terms of PTSD and participants expectations of the counselling process and outcome.

O30. Jennifer Fredericks (Crandall University)

Addictions & Recovery

Illicit and licit drugs have posed to be an ongoing struggle for many individuals in Canada today. This qualitative study of 14 drug users in a small town exposes their drug-taking experiences. Specifically, this inquiry focuses on early life struggles, the onset of drugs, the addiction process, and treatment, recovery, and relapse. The analysis suggests that the age of the onset of drugs is lessening. This alarming trend is pioneering in this investigation. Findings also reveal that long term care is expensive, and inaccessible to the typical addict. This inquiry recommends that government funded long term care be made available to recovering addicts so that they can circumvent relapsing into drug-use.

Group 1C, Loyola 187

Chair: M. Katharine Berlinguette, Saint Mary's University

O31. Amy Silver (Dalhousie University)

Does Reward Magnitude Moderate the Effects of Ownership?

In a seminal study, Krigolson et al. (2012) demonstrated that perceived ownership biased the output of a reward processing system within medial frontal cortex. Specifically, Krigolson and colleagues found that while the medial-frontal system was sensitive to the outcomes of gambles for "self", it was not sensitive to the outcome of gambles for another. In the present study, we investigated whether the effect of

self/other ownership was moderated by reward magnitude. Using a four-choice gambling paradigm, participants were asked to gamble for either themselves or another participant. To assess reward processing within medial-frontal cortex, we recorded event-related brain potential (ERP) data while participants played the gambling game. An analysis of the ERP data revealed biases towards gambles involving oneself and towards gambles for high value rewards. Interestingly, an interaction between reward magnitude and ownership was revealed such that when gambling for another, the medial-frontal system was only sensitive to high value rewards. Importantly, these results demonstrate that the effects of perceived ownership with regard to another may be limited to situations when the outcome of an event has negligible impact – within the context of this experiment, low value gambles.

O32. Melanie McGillivray (University of New Brunswick)

Repetition Effects on Remote Long-Term Memory for Faces: An ERP Study

The ability to recognize and differentiate faces is important so we can discriminate between friends and enemies. This study used event-related potentials to investigate how the brain remembers faces. Similar to previous research, we expected to see an old/new recognition memory effect (i.e. larger electrical response between 400-650ms for personally known versus unknown faces). In addition, we attempted to replicate previous findings of an old1/old2 repetition effect (larger electrical response for the second versus first presentation of a personally known face between 400-650ms).

Event-related potential recordings were obtained from twenty participants attending the University of New Brunswick and the general public. Participants viewed a series of faces including 2 different pictures of personally known faces interspersed with pictures of strangers (i.e. unknown faces).

As predicted, personally known faces elicited a larger electrical response than unknown faces (the old/new effect). In addition, the old1/old2 effect was observed - the second presentation of a well-known face elicited a larger electrical response than the first presentation of the same face.

The old/new effect reflects the brain connecting to previously stored memories. Long-term memory is widespread in the brain so remembering familiar faces produces extensive activation. Following the initial presentation of a familiar face, the brain connects to memories of that person (including contextual information). The brain can connect to additional memories and access more contextual information following the second presentation. This causes more neurons to fire, and produces an old1/old2 effect (enhanced response following the second presentation of a face).

O33. Shawn Casey (University of New Brunswick)

The Effect of Exposure to a Virtual Audience on Public Speaking Anxiety

Social phobia is clinically significant in as much as 13% of the population, and subclinical in many more. Anywhere from 65-80% of those with social phobia never seek treatment, owing primarily to factors of cost, stigma, and the potential for embarrassment associated with going to a clinician for imaginal or in vivo exposure. Virtual reality exposure therapy represents a promising way forward, using high-quality virtual environments that provide the benefits of both imaginal and in vivo techniques without their drawbacks. In this study, the effect of a novel virtual reality exposure program combining psychoeducation and progressive muscle relaxation with a sophisticated virtual environment is studied,

using a control group study model to evaluate the efficacy of the program in participants with varying levels of social anxiety. A decrease in both State and Trait anxiety, as well as an increase in ratings of both public speaking confidence and positive self-statements, was observed for participants in the experimental group. No such change was observed within the control group, lending credence to the concept of virtual reality exposure as an efficacious, expeditious method for delivering effective exposure therapy.

O34. Donika Shala (Saint Mary's University)

Impact of "Getting Wasted" on Undergraduate Females' Short- Term Mating Strategies: An Evolutionary Psychological Explanation

A recently noticed social phenomenon among a significant percentage of undergraduate female university students in North America is the frequent and excessive consumption of alcohol, often referred to as "getting wasted." It has been suggested that this periodic binge drinking and attendant loss of inhibition often results in an increase in casual sex and a decrease in sexual partner selectivity while these women are intoxicated. If true, this pattern of behavior flies in the face of well accepted evolutionary psychological theory. Evolutionary pressures are posited to have produced modern females who are generally much less likely to engage in casual sex and are much more likely to be highly selective in choosing sexual partners than males. During the period of evolutionary adaptation, casual and frequent indiscriminant intercourse would have carried a heavy price. In addition to the risks and costs of pregnancy to ancestral females, it has also been suggested that promiscuous females paid a social price in perceived mate desirability due to evolutionary pressures for paternal certainty. The purpose of this research project is to investigate a possible evolutionary psychological explanation for this "getting wasted" among this population of females. I hypothesize that women who engage in casual sex while intoxicated are viewed less negatively than sober women engaging in the same behavior. I am proposing that the potential adaptive benefit of being intoxicated while looking for a mate is that it permits women to sample more potential partners without paying the social cost of promiscuity.

Group 2C, Loyola 171

Chair: Debra Gilin-Oore, Saint Mary's University

O35. Julia Kontak (Mount Allison University)

Hot Executive Function and Age Development during the Preschool Period: A relationship between Probabilistic Learning, Outcome Sensitivity, and Prosocial Behavior

The purpose of the current study was to investigate age development of the hot executive function (EF) in preschoolers by analyzing the relationship between probabilistic learning, outcome sensitivity and pro-social behavior. The participants involved 75 preschool children (38 3-year olds; 37 4-year olds), from daycares located in Sackville and Moncton, New Brunswick. The participants completed a Probabilistic Learning Task (PLT) and two pro-social behavior tasks; the sharing task, and the turn-taking task. It was hypothesized that 4-year olds would have a more developed hot EF compared to 3-year olds and therefore would have greater performance on the PLT and the pro-social behavior tasks. In addition, it was predicted that children who are more sensitive to punishment on the PLT would co-operate more on the

pro-social behavior task due to a higher level of conscience. The results indicated that 4-year olds performed advantageously on the PLT and turn-taking task compared to 3-year olds, but there was no age effect on the sharing task. Furthermore, the results illustrated that the children who were more sensitive to punishment on the PLT showed greater performance on the turn-taking task, but not on the sharing task. The study gave support to the notion that the EF has rapid development between the ages of 3 and 4. As well, the study gave further evidence on the relationship between punishment sensitivity and pro-social behavior.

O36. Sarah Caldwell (Memorial University)

Validity and Reliability of the Plusoptix Vision Screener and the Suresight Autorefractor

In the present study, the reliability of PlusoptiX S09 Vision Screener and the Welch-Allyn SureSight Autorefractor were compared. Both devices were designed to measure refractive error and were designed for screening young children. To analyze validity, scores from each device were compared to those obtained from gold standard cycloplegic retinoscopy by pediatric ophthalmologists. Finally, to assess screening effectiveness, pass/fail classifications for each device were compared to gold standard diagnoses to provide measures of sensitivity, specificity, and accuracy. Data were included for a total of 28 participants (M = 6.5 years, SD = 3.8 years). Analyses indicated that the PlusoptiX provided more reliable measures of spherical refractive error (Coefficients of repeatability [COR] = 1.204D v 1.470D), while the SureSight provided more reliable measures of cylindrical refractive error (CORs = 0.678D v. 0.736D). Also, the PlusoptiX showed better agreement with gold standard measures of both spherical and cylindrical refractive error. Finally, the devices yielded identical sensitivity scores (60%), but the PlusoptiX had higher specificity scores than the SureSight (78 v. 60%) indicating that it better identified participants with normal, healthy vision. In all, the PlusoptiX appears to be the better screening device.

O37. Venus Bali (Mount Saint Vincent University)

Examining the Influence of Sibling Jealousy and Rivalry on Present Day Relationships with Parents

It has been established in the developmental literature that the stability of the parent-child relationship is dependent upon many factors associated with parents and their children (Daniels & Rowe, 1981; Waylean, Stallard, Stewart-Brown, 2008). For example, parental personality and child temperament influence how the parent-child relationship progresses; however, the role of indirect factors in the parent-child relationship are less known. Sibling jealousy and rivalry are factors that deteriorate the relationships between siblings, (Moser, Jones, Zaorski, Mirsalimi & Luchner, 2005) but it remains unknown whether the quality of the childhood relationships between siblings is related to the quality of adult relationship between parent(s) and individual children. The present study posits that a relationship exists between sibling jealousy and rivalry, and parent- [adult] child relationship quality. Specifically, it was hypothesized that participants who had higher rates of sibling jealousy and rivalry would currently demonstrate lower relationship quality with their parents than participants who had lower rates of sibling jealousy and rivalry. Using a retrospective research design, the characteristics of the participant (N=98) and sibling childhood relationships were measured through the Sibling-Inventory of Differential Experience (SIDE, Daniels & Plomin, 1985) and the Sibling Rivalry Questionnaire (SRQ, Stocker, Lanthier & Furman, 1997). Conversely, the Parent Adult-Child Relationship Questionnaire (PACQ,

Anstey, Brodaty, Kruk, Luscombe, & Pesiah, 1999) served to reveal the present day quality of the parent-child relationship. Multiple regression analyses revealed that the quality of current relationships with mothers and fathers could not be predicted by the combination of retrospective memories of childhood rivalry and jealousy (Mothers: $F(5, 89) = 1.34, p = .24$; Fathers: $F(5, 89) = 1.56, p = .18$). However, a statistically significant correlation was noted between the quality of the mother-child relationship and jealousy ($r = -.25, p = .02$). These results and others are discussed in terms of parental differential treatment of children and how families that overcome conflict may be securing future quality adult child-parent relationships.

Group 3C, Sobey 260

Chair: Anjali Daté, Saint Mary's University

O38. Nicole Adams (Dalhousie University)

Understanding the Police Caution and Police Questioning

Previous research suggests that people do not understand their rights when they are delivered verbally in the police caution (i.e., the right to a lawyer, the right to remain silent; Eastwood & Snook, 2009). Moreover, when suspects are questioned, they may behave in ways that could lead them to confess to crimes they have not committed, especially if coercive questioning tactics are used, or if the suspect is prone to suggestibility (Kassin et al., 2003; Gudjonsson, 2003). The current study took a quasi-experimental approach to explore the possible relationships between caution comprehension, confession, and suggestibility. It was hypothesized that the lower the comprehension of the caution, the higher the likelihood of confession, and this relationship would be moderated by suggestibility. Correlational analysis revealed a significant relationship between suggestibility and the likelihood of confession; however, further research is needed to determine the nature of the relationship between caution comprehension and confession behaviour. Correlational analysis also revealed a significant relationship between mental state during an alleged crime (i.e., sober or intoxicated) and likelihood of confession. Consistent with previous research, the present study found that overall caution comprehension was low when presented verbally and that there were problematic sentences in each section that inhibited understanding (Eastwood & Snook, 2009). Peace Officers and lawyers were surveyed for their beliefs on the public's understanding of their legal rights. Results indicated that further research is needed to determine if their professional opinions concerning rights comprehension can be generalized to the public.

O39. Emily Ready (Saint Thomas University)

Lawyers' Beliefs and Accuracy of Knowledge Pertaining to Eyewitness Research

Eyewitness testimonies are responsible or nearly 75% of wrongful convictions in the United States. Psychologists have emphasized the fallibility of eyewitness memory since the late 1800s and encourage the legal system to use eyewitness testimonies cautiously. However, the legal system maintains that such frailties are common knowledge and resists advancements in eyewitness research. Studies from the past two decades indicate that neither legal professionals nor jurors properly understand the variables that can

influence eyewitness accuracy; nevertheless, there have been no universal decisions to implement recommendations from the research, and eyewitness experts are typically rejected from court. This study investigated the accuracy of knowledge and beliefs related to eyewitness testimonies among civil and criminal lawyers in Canada. 159 lawyers completed a 32-item questionnaire probing their understanding of different variables empirically known to impact eyewitness accuracy. Results demonstrated that knowledge concerning eyewitness accuracy appears to be improving. Nevertheless, there is still room for improvement suggesting that this information is not, as some judiciary would suggest, common knowledge. These results support the need for mandatory courses in law schools on the subject in order to increase knowledge among all lawyers and to reduce the need for expert witnesses.

O40. Holly Chapadeau (Saint Mary's University)

The Attrition of Dropouts in the Strongest Families Institute (Part 1 of 2)

The objective of this initial study phase is to explore possible determinants of Strongest Families clients who prematurely dropout of treatment based on coach experience and opinions. This qualitative data collected from Strongest Families coaches has been analyzed to develop a coding scheme that has the potential of being applied early in treatment to identify potential families who may be at risk of early attrition. Themes such as client expectations, therapeutic alliance, task agreement, and other factors have been explored as potential predictive values for intervention.

O41. Sebastian Pacey-Smith (University of New Brunswick)

Investigating the Effect of New-Brunswick's Community-Based Behavioral Intervention Program on Social Communication in Children with Autism Spectrum Disorders

This study examined the effectiveness of New-Brunswick's early intensive behavioural intervention (EIBI) program for children with autism at improving two social communication behaviours: joint attention and behavioural requesting. The initiations of and responses to these behaviours were measured in nine children with autism using the Early Social Communication Scales (ESCS). Participants showed significant increases in their initiations of joint attention as well as marginally significant increases in both responding to joint attention and responding to behavioural requests. Initiating behavioural requests was found to be higher at baseline compared to joint attention and remained stable throughout the intervention suggesting that behavioural requesting may not be delayed in children with autism. These findings may be further enhanced by administering the ESCS independently of other assessments and by increasing the length of the table and limiting the external distractions of the setting.

Poster Presentation Session

1:00pm – 3:15pm

Loyola Conference Hall 290

Clinical

P1	Susan	Doyle	MUN
P2	Micah	Tilley	MUN
P3	Julie	Dwyer	MUN

Industrial-Organizational

P4	Bafana	Mashingaidze	SMU
P5	Erin	Sheppard	SMU

Education

P6	Danielle	Biss	MTA
P7	Jonathan	Dixon	SMU
P8	Samantha	MacLeod	SMU

Psychology and Law

P9	Katelynn	Carter-Rogers	SMU
P10	Todd	Floyd	SMU
P11	Matthew	Orr	SMU
P12	Davey	Chafe	SMU

Human Sexuality

P13	Hannah	Burroughs	MTA
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Social

P14	Jillian	Glasgow	ACA
P15	Krystina	Trites	MSVU
P16	Christopher	Lively	StfX
P17	Brianna	Cregan	SMU
P18	Allison	Worth	SMU

Health

P19	Allison	Chaytor	MUN
P20	Devon	Boschel	MTA

Forensic

P21	Mallory	Guthro	MSVU
P22	Philip	Aucoin	MSVU

Sensation and Perception

P23	Philip	Aucoin	MSVU
P24	Stephane	Maclean	DAL

Cognitive

P25	Sarah	Dolan	DAL
P26	Ashley	Howse	DAL
P27	Andrew	Lehr	MUN
P28	Shaunda-Lynn	Jesso	MSVU
P29	Anika	Needham-Reece	MSVU
P30	Cassandra	Greenslade-McClair	SMU

Developmental

P31	Alisha	Hiscott	SMU
P32	Melanie	Hall	MUN
P33	Shelley	Cornick	MUN
P34	Stephanie	Kelly	MUN
P35	Buseon	Kang	MSVU
P36	Nicole	Webb	SMU

Personality

P37	Nicole	Ali	ACA
P38	Emma	Ells	MSVU
P39	Emma	Ells	MSVU

Neuroscience

P40	Nicole	Cranford	MUN
P41	Jessica	Dwyer	MUN
P42	Hiliary	Martin	MUN
P43	Michael	Sloan	MUN
P44	Jenna	Pittman	MUN
P45	Casey	Losier	MTA

Abstracts: Poster Presentations

1. Susan Doyle (Memorial University)

Negative Affect as a Predictor of Separation Anxiety in Children and Adolescents: Age and Gender as Moderators of this Relationship

Separation anxiety disorder (SAD) is one of the most commonly diagnosed psychological disorders in childhood. SAD can also follow children into adolescence and impact their social functioning as they develop (Brand et al., 2011). Affect, which is described as the experience of emotion, has been proposed as a risk factor for various psychological disorders (Watson & Clark, 1991). In particular, negative affect has been shown to be an underlying risk factor for anxiety, and it was hypothesized in this study that children and adolescents with high levels of NA would be more likely to display symptoms of separation anxiety. Specifically, it was hypothesized that a positive correlation would exist between these two variables assessed concurrently. In addition to testing the relationship between NA and separation anxiety, this study analyzed the influence of the moderator variables of age and sex (Weems, 2007). Data were collected from a 2012 study which included participants from schools in the St. John's and surrounding areas. Both the Revised Child Anxiety and Depression Scale and the Positive and Negative Affect Schedule Child Version were administered. The results showed a significant, positive correlation between NA and symptoms of SAD. Age of the child was found to be a significant moderator to this relationship; sex of the child was not a significant moderator. The implications of these findings for the further development of child anxiety prevention and treatment programs are discussed.

2. Micah Tilley (Memorial University)

Examining the Relationship between the Quality of Sibling Relationships and a Child's Feelings of Self-Worth

Although an extensive amount of research exists on parent-child and peer-child relationships, there is a dearth of research on sibling relationships and their effects on a child's self-concept. Relationships with others contribute to the formation of a child's self-concept, and more specifically, a child's feelings of self-worth. Positive feelings of self-worth, such as being happy with the way one is, often stem from good quality relationships, which contain elements of trust, support, communication, and availability. The main goal of the present study was to examine the relationship between the quality of sibling relationships and a child's feelings of self-worth based on responses given on self-report questionnaires in a sample of 132 elementary and junior high school children. The present study also examined the relationship between the quality of sibling relationships and three domains of self-worth, namely,

social acceptance, physical appearance, and global self-worth, and tested whether sex moderates these relationships. The results suggested that good-quality sibling relationships accounted for 6% of the total variance in self-worth in the sample of school children. Additionally, the results suggested that the quality of sibling relationships is associated with the extent to which a child is socially accepted, but is not associated with a child's perceptions of his or her physical appearance or global self-worth. The results from the study also indicated that the sex of the child does not play a significant role in moderating the relationship between the quality of sibling relationships and self-worth, or the relationship between the quality of sibling relationships and social acceptance.

3. Julie Dwyer (Memorial University)

Assessing worry through an examination of self management and mindfulness

Worry is a predominantly verbal-linguistic attempt to avoid future aversive events. Worry can become debilitating in severe and chronic forms and is known to be a significant feature of several anxiety and mood disorders. As interest grows in the theoretical constructs of self-management and mindfulness, it is important to examine how these constructs can be related to worry, particularly in terms of predicting it. The goal of the present study was to assess the nature of the relationship between worry and the constructs of mindfulness and self-management by using the DASS-21, CAMS-R and SCMS. Participants consisted of 53 adults enrolled in outreach programs in St. John's, Newfoundland. Mindfulness demonstrated a strong, predictive relationship with worry, while the SE subscale of SCMS indicated a significant relationship with worry.

4. Bafana Mashingaidze (Saint Mary's University)

What's in a Name? An Investigation into Implicit Attitudes Linking Names to Workplace Behaviours

Previous research examining the associations between race and negative behaviours has shown that they are a result of negative connotations, which are associated with racial appearances. The purpose of this study is to investigate implicit associations between the given names of individuals and descriptions of workplace behaviours. We hypothesize different response times for the different stimulus pairings (white-positive and black-negative or black-positive and white-negative). Participants were required to sit in front of a computer screen and differentiate between positive and negative behaviours. The names and behaviours are then paired up and the participant is required to sort a randomly presented list of names and behaviours. The results reveal a trend where the directionality strongly supports slower reaction times with specific behaviours allowing an inference that names can lead to behavioural assumptions.

5. Erin Sheppard (Saint Mary's University)

Creating Safety Culture Metrics

Safety culture has been identified as an important causal factor in a number of major disasters (e.g., Deepwater Horizon). In order to maintain the high standards of safety in the Canadian petrochemical industry, there is a need to provide managers and regulators with evidence based information on safety culture. Managers need to understand the concept, how to measure it and how to improve. No evidence-based documentation on measuring safety culture is presently available to managers and professionals, thus the current study seeks to fill this important gap. An extensive literature reviewed was conducted to identify indicators of safety culture. Questionnaires and surveys measuring safety culture in offshore petrochemical industries were systematically reviewed. The metrics were first examined with a deductive approach, relying on peer-reviewed published reports of reliability, validity, and dimensionality. The second step was an inductive approach; subject matter experts sorted the individual items across a variety of metrics into factors to assess content validity. Currently, four (4) interviews have been conducted with managers to ascertain their perceptions of safety culture. Current models and dimensions of safety culture are presented, along with a discussion of criteria with which to evaluate new and future metrics. Thus far twenty safety culture metrics have been created. This research has been funded by Encana.

6. Danielle Biss (Mount Allison University)

Readiness for Post-Secondary Education: Development of a Screening Tool

Research shows that students often experience challenges transitioning from high school to university or college, resulting in increased risk of a number of difficulties, including homesickness, loneliness, stress, anxiety, and depression. Such difficulties are known to affect adjustment to post-secondary education and, ultimately, persistence. Researchers recognize that many variables contribute to variations in academic adjustment and performance, yet success in post-secondary institutions has primarily been predicted using an index of academic achievement (e.g., GPA; standardized test scores) or a battery of psychosocial variables (e.g., depression, anxiety). Although valuable, these approaches often fail to capture the skills emerging adults need to successfully navigate independent living in a new school setting. The purpose of the present study was to develop a self-report inventory that could be used by high school students, parents, counsellors, and teachers to assess adolescents' readiness for post-secondary education and independent living. An initial pool of 91 items reflecting the construct of readiness was pilot tested with an undergraduate sample, $N = 156$. The scale was reduced to 44 items, falling into seven clusters, including Time Management, Psychological Health, and Financial Literacy. Evidence for reliability and validity of the scale is presented. Specifically,

the scale predicted students' self-efficacy as well as social, academic, and personal-emotional adjustment to university, over and above age, sex, verbal ability, anxiety, depression, and learning disability. Future research should refine the scale using a more representative sample, and consider other variables that may contribute additional variance in predicting post-secondary readiness.

7. Jonathan Dixon (Saint Mary's University)

Success in Online Courses: An investigation of individual differences

With a growing emphasis on distance education, and an increasing popularity for Massively Open Online Courses (MOOCs) understanding who succeeds in this format is beneficial to both institutions and students. With over 100 courses in various disciplines from 33 universities, and 1.85 million students, Coursera offers an online education which shows how future of education may lie. Success in traditional courses has been well researched, whereas research on online courses focuses more on course equivalence, academic dishonesty, and retention . The purpose of this study is to investigate the individual differences in personality, computer anxiety, internet use, learning strategies, reason for taking course, and motivational orientations, and how predictive each of these are for success in an online course. A sample of undergraduate students from Saint Mary's University will complete measures of each construct, and will list courses taken online and their mark received. A hierarchical multiple regression analysis was used to evaluate the impact of each construct on predicting success in online courses. Results showed key differences in students who take online courses vs. those who do not. By seeing which are the strongest predictors of success, development of online courses can help buffer against constructs which are predictors of poor performance, and promote those traits which predict exceptional performance.

8. Samantha MacLeod (Saint Mary's University)

Finding the Key to Succeed: Attachment as a Moderator of Psychological General Well-being and Adjustment in University

This study investigated whether attachment style moderates psychological general well-being and adjustment to university. Based on research previously done by Mattanah, Lopez, and Govern, (2011), Gallagher and Gill (2000), and Benton, Robertson, Tseng, Newton, and Benton (2003) students, 18-25, completed a demographic questionnaire, Relationship Questionnaire, Student Adaptation to College Questionnaire, and Psychological General Well-being Index Short-form. It was hypothesized attachment would moderate the relationship between psychological general well-being and adjustment to university and this relationship would differ based on year of study but this was not the case. It was found that attachment and adjustment together significantly predicted well-being for all

students. Junior students' adjustment significantly predicted well-being and seniors' adjustment and attachment predicted well-being. Correlations, limitations, and implications are discussed.

9. **Katelynn Carter-Rogers (Saint Mary's University)**

Behind the badge: An evaluation of police pre-employment policy and practice

As of May 15, 2012 Canada was home to 69, 539 police officers (Statistics Canada, 2013). Potential police officers go through a rigorous selection process previous to an offer of employment. We have compiled research regarding the police pre-employment process and methods used. Specifically, we have examined the use of pre-employment polygraphs and personality testing; both practices are evaluated based on history, rationale, and application of appropriate techniques and measures. This is not a critique but primarily a comparison of municipal, provincial, and federal practices and policies. This information will be used for our future research in the area of police selection and hiring.

10. **Todd Floyd (Saint Mary's University)**

Poker face: Making decisions about guilty or not guilty faces using behavioural characteristic traits

Jeffery Valla and colleagues (2011) recently found that participants were unable to accurately judge between the distinctions of criminality, namely violent/non-violent status of a crime when looking at a photograph. But Valla et al (2011) reports that with above average; participants were able to accurately distinguish whether the photographs they were looking at were of actual criminals. This current study investigates further into this recent finding which suggests individuals are able to distinguish between guilty and not guilty faces using physical characteristic traits. In a pilot study, Carter-Rogers and colleagues (2012) found that participants could distinguish between guilty and not guilty individuals when controlling for attractiveness. This effect was driven by participant's first impression of trustworthiness, such that the more trustworthy an individual is, the less likely to be seen as guilty. The effect was similar for competence. Further research into this finding found that the characteristic traits trustworthiness and competence were being evaluated the same way. In the first of a two part study, we found when measuring the accuracy of judgments; controlling for attractiveness, it was found that competence and deceitfulness were the predictors of guilt accuracy, such that the less competent an individual is perceived as the more likely they were guilty of a crime. This effect was similar for deceitfulness. Regressions, correlations, and implications will be discussed further.

11. Matthew Orr (Saint Mary's University)

The Influence of Mental Disorder Attitudes on the Perception of Confession Evidence

The relationship between attitudes towards individuals who have been diagnosed with a mental disorder and the perception of confession evidence produced by someone diagnosed with a mental disorder was investigated. 162 participants were randomly assigned to eight conditions and were asked to report whether or not a confession they were exposed to was true, how certain they were of their decision, and the reasons for their truthfulness decision. Participants also completed the Social Distance Scale and Attribution Questionnaire to measure their attitudes towards individuals diagnosed with a mental disorder. Analysis involved chi-squared comparisons of accuracy rates in conditions as well as ANOVA comparisons of certainty scores and scores on attitude measures. Our results suggest that attitudes do not influence individuals' perceptions of confession evidence, but that individuals tend to rely on a truth-default heuristic when perceiving confession evidence.

12. Davey Chafe (Saint Mary's University)

Big Brother: Decisions made regarding the selection of faces when asked to work on a collaborative task

Appearance has an influence on the initial judgements that people make about others. These kinds of evaluations have predicted outcomes of elections (Todorov et al., 2005) where perceived competence predicted election success. A pilot study by Carter-Rogers et al. (2012) investigated whether or not participants accurately determined the verdict (i.e. guilty or not guilty) of an individual based on a first impression only. 129 participants were asked direct and indirect questions about photographed faces relating to their characteristic traits. It was found that participants could distinguish between guilty and not guilty individuals even when controlling for attractiveness. This effect was driven by participant's first impressions of trustworthiness such that the more trustworthy an individual is, the less likely they are to be seen as guilty. The effect was similar for ratings of competence. To expand this project beyond simple judgements and into decisions regarding willingness to work with individuals for a specific purpose, we are conducting a two part study. In the second part of the study, we ask participants to make decisions about faces, asking them to decide whom they would like to work with in a collaborative task. Specifically, we are replicating the popular reality television show "Big Brother" to create a scenario that allows the participants to make judgments and selections about individuals from photographs. Regressions, correlations, and implications will be discussed further.

13. Hannah Burroughs (Mount Allison University)

Differences Between Volunteers and Non-Volunteers in Sex Research

The current study seeks to examine personality traits and general characteristics that are prevalent amongst individuals who agree to participate in sex studies and individuals who do not. Although previous studies have investigated this topic, it is hypothesized that with the increase in easily accessible pornography over the internet, these differences in characteristics may not be as prominent as they once were. These differential factors are worth investigating, as the results found in studies must be able to be generalized to the rest of the population. However, it is difficult to do so if the participants in the sample have certain qualities that are not typical of the population from which they were taken from. It was expected that age, gender, sexual activity, extroversion, sexual guilt, erotophobia/erotophilia, having previously watched porn and frequency of porn consumption would predict an individual's likelihood of participating in more invasive studies. The result indicates that all of these factors were significant predictors when participating in a study for which they had to watch pornographic videos. Only gender and frequency of porn consumption were significant predictors when participating in a study where they would also have their genital arousal measured. These findings allow researchers to gain a better understanding of what type of person agrees to partake in a sex study and can thus work towards developing methods that attempt to control for such biasing factors in a sample.

14. Jillian Glasgow (Acadia University)

When you need a hand: A model of attachment and support seeking in romantic relationships

Mikulincer and Shaver (2003) have suggested that support seeking is a primary function of the attachment system and it is therefore important to understand how attachment and support seeking are associated in romantic relationships. The current research investigates a moderated mediation model of attachment, support seeking and well-being in a romantic dyad, where the support seekers' attachment predicts the method they use to seek support (direct, indirect or downplaying), which in turn predicts the support givers' well-being (both psychological and relational), depending on the support givers' attachment styles. Couples completed an online background questionnaire, assessing attachment, and five diary questionnaires, assessing how they sought support for daily stressors and their daily relational and psychological well-being. Using a statistical macro called Process (Hayes, 2012), several direct effects were found (e.g., attachment avoidance predicted increased downplaying) as well as moderated mediation. Specifically, it was found that when

more fearful avoidant support seekers use direct support seeking, it is associated with increased psychological well-being for fearful support givers. Additionally, when dismissing avoidant support seekers use downplaying, it predicts decreased psychological well-being for fearful support givers. Implications will be discussed.

15. Krystina Trites (Mount Saint Vincent University)

Assessing Eyewitness Credibility: Social Bias and the Moderating Effects of Character Witness Testimony and Eyewitness Behaviour

Jurors rely heavily on eyewitness testimony in order to render a verdict. The purpose of this project is to determine if biases against eyewitnesses who display behavioural symptoms consistent with mental illness diagnoses, have an effect on perception of credibility by jurors, and whether this effect is moderated by the type of character witness evidence presented in the case. In this 2 X 3 between subjects factorial study design, 68 participants were randomly assigned to one of six courtroom scene vignette conditions that varied on [eyewitness] behavioural symptoms associated with mental illnesses (schizophrenia-disorganized type, histrionic personality disorder and no mental illness) and character witness evidence content (favourable or unfavourable character reviews of the defendant). After reading the court scene vignette, participants, acting in the role of jurors, indicated their perception of the credibility of the eyewitness on a five-point scale. A main effect was found for behavioural symptoms consistent with mental illnesses on the juror's perception of the eyewitness 'credibility.

16. Christopher Lively (Saint Francis Xavier University)

Should We or Shouldn't We? Anticipated Regret within Friends with Benefits Relationships

"Friends with Benefits" relationships (FWBRs), defined as non-committal, non-romantic sexual relationships continually occurring between established friends, is a relatively new area of research. Previous FWBR studies have reported on multiple themes related to FWBRs including rules of engagement, characteristics of FWBR participants, and positive and negative aspects of having FWBRs. Very little research has considered predictors of FWBRs. Using the extended Theory of Planned Behaviour model (i.e., intentions are the best predictor of behaviour) as a framework, the current study investigated anticipated regret, attitudes, subjective norms, perceived behavioural control, descriptive norms and past behaviour as possible predictors of FWBRs, and furthermore examined FWBR intention as a predictor of FWBR behaviour. The present study was conducted over 2 time intervals. 649 undergraduate students participated at Time 1 (M = 18.62 years old; SD = 1.49), and 218 undergraduate students participated at Time 2 (M = 18.71 years old; SD = 1.81). Anticipated regret, attitudes, subjective norms and past behaviour

emerged as predictors of FWBR intention. FWBR intention predicted FWBR behaviour on only one behaviour item ($\beta = -.24$, $OR = .79$, $p < 0.01$). Alcohol consumption did not moderate the link between FWBR intention and FWBR behaviour (frequency behaviour [$\beta = -.04$, $p = .80$], quantity behaviour [$\beta = .25$, $p < 0.15$]). Possible reasons for the present study's findings are considered and discussed.

17. Brianna Cregan (Saint Mary's University)

State Self-Esteem and Facebook: Gender Differences

This study examines the perceived average number of Facebook friends in correlation with one's state self-esteem. It is hypothesized that individuals who derive their feelings of self worth and self esteem from a social contingency may be more affected by the perceived Facebook friend average than others who derive their self worth from different contingencies. Overall, male and female participants had a higher state self esteem in their appearance when they perceived the Facebook friend average to be the lowest. Female users were seen to place more weight on their appearance in correlation with their contingency of self-worth. Female participant's self esteem also varies depending on the perceived Facebook friend average. This data suggests that females may be more sensitive to social media influences such as Facebook.

18. Allison Worth (Saint Mary's University)

Exploring the relation between human identity, connection to nature, and environmentalism

The Earth is facing many environmental problems, so it is important to understand some of the factors that contribute to human involvement in creating change. Research has suggested that having a greater identification with all of humanity predicts humanitarianism. The goal of this research was to understand how human identity relates to environmental concerns. Do those who identify more with all of humanity care more for nature and the environment? Does this result in thoughts that one can have a greater effect on the environment, and the actions one takes? We found that identification with all humanity significantly correlates with nature relatedness, $r(336)=0.237$, $p<0.01$. and with environmental efficacy (the thoughts one has about having an effect on the environment) $r(336)=0.235$, $p<0.01$. We also found that identification with all humanity uniquely contributes to environmental activism $b=0.080$, $t(331)=2.261$, $p<0.01$. Implications and directions for further research are also discussed.

19. Allison Chaytor (Memorial University)

Dental Anxiety: A Cross-Generational Study

The first goal of this study was to examine the prevalence of dental anxiety in children, young adults and seniors, and to determine if there is a significant difference among groups. The second goal of this study was to investigate some major factors that contribute to dental anxiety, particularly focusing on the dentist-patient relationship. Sixty participants, equally chosen from three age groups (5-10, 19-35 and 60+) completed a verbally-administered questionnaire. The questionnaire consisted of questions from the Dental Fear Survey, the Dental Concerns Assessment and the Dental Beliefs Survey. The first hypothesis was that dental anxiety would be highest in seniors, followed by young adults, and lowest in children. The second hypothesis was that the contributing factor of general dental worry would be the greatest contributor to dental anxiety. Lastly, dentists' communication skills were predicted to most strongly contribute to a negative dentist-patient relationship. Frequencies, ANOVA and chi-square tests were used to analyze the data. Results indicated that there was a difference across age groups with respect to both the prevalence of dental anxiety and participants' perceptions of their dentist, but the trends were not the same. The prevalence of anxiety across age groups was opposite to that predicted by the hypothesis; children had the highest levels of dental anxiety, followed by young adults and then seniors. Regarding views about the dentist, young adults rated their dentists the lowest, followed by seniors and then children. The hypothesis of worry being the most salient contributor was supported by the results.

20. Devon Boschel (Mount Allison University)

Examining the Effects of a Stressful Task on Psychological and Physiological Sexual Arousal in Women

There has been conflicting evidence on the effects of stress on women's physiological and psychological sexual arousal. The purpose of the present study was to examine the effects of a stressful task on sexual arousal, in women, while presenting a stressful stimulus and an erotic/arousing stimulus simultaneously. Female undergraduate university students voluntarily took part in the experiment and received course credit. Eligible participants (determined by an initial phone screen) were randomly assigned to either the control group or the experimental group. Participants were shown a neutral video, followed by an erotic video while performing either the Mount Allison Stress Task (MAST), or a non-stressful task, depending on the condition. Sexual arousal was measured physiologically with a vaginal photoplethysmograph and psychologically with an arousometer. Physiological stress was measured through change in cortisol level, measured between two saliva samples. It was found that participants were significantly more

stressed out in the experimental condition than in the control condition. No significant result was found for sexual arousal, however the results for physiological sexual arousal were in the predicted direction. These pilot data provide valuable support for the MAST as a stressful stimulus and provide a strong direction for research in this field.

21. Mallory Guthro (Mount Saint Vincent University)

Eyewitness Identification: The Effect of Suspect Photo Characteristics and Photo Presentation Type on Identification Accuracy

The purpose of the current study was to investigate the influence of photo array styles (sequential presentation style versus simultaneous presentation style) and photo characteristics (color photos versus black and white photos) on memory accuracy, and the confidence –accuracy relationship of memory. It was hypothesized that eyewitnesses will correctly identify the suspect more often when the photos are presented in a sequential presentation style vs. a simultaneous presentation style; however, this effect will be moderated by the presence or absence of colour in the photos. Specifically, black and white photo arrays will produce equal accuracy scores regardless of presentation style; however, accuracy scores will be significantly higher when the mug-shot photos are in colour and are presented in the sequential order style only. Thirty-two undergraduate students viewed a short video of a young man committing a criminal act and were randomly assigned to one of four photo conditions. Participants indicated whether the video suspect was among the six suspects in the photo array. Finally, participants rated how confident they were with their answer. Contrary to previous finding (e.g., Steblay, Dysart & Wells, 2011), Chi square tests of independence revealed no significant differences in accuracy rates (counts) as a function of photo array presentation style or photo characteristics. Moreover, the results of a logistic regression analysis suggest that photo presentation type, photo characteristic and confidence are not sufficient predictors of memory accuracy; however, a moderately positive relationship was found for confidence ratings and accuracy rate. Study limitations and direction of future research are discussed.

22. Philip Aucoin (Mount Saint Vincent University)

The Effects of a Criminal Record and the Seriousness of the Charge on Conviction Rates

Many factors involved in a criminal case can bias juries' verdicts. One of these factors, the defendant's criminal record, has not been studied extensively with regard to how it may interact with other features of a case (e.g., severity of current indictable offence) to influence conviction decisions. To address this question, the defendant's criminal record and the seriousness of the current charge were

manipulated and tested to determine whether they interact to affect conviction rates in a mock juror setting. Undergraduate participants (N=75) read one of four case descriptions resulting from combining previous criminal record (presence or absence) and current conviction severity (high or low). They then made a decision as to whether the defendant was guilty. Not only were the interactive effects of having a criminal history and seriousness of the crime in question not associated with differences in conviction rates, but also neither factor individually affected the number of convictions. These findings are consistent with previous research showing that gravity of an offence has little to no effect on verdicts handed down by juries, but, at the same time, are inconsistent with evidence indicating that a prior criminal record is more likely to result in a guilty, rather than a non-guilty verdict. Interestingly, there was clear evidence that the jurors in this sample were strongly biased toward judging defendants as innocent (89.33% not guilty vs. 10.66% guilty). The implications of these findings for understanding sources of bias on jurors' verdicts are discussed, along with considerations for future research.

23. Philip Aucoin (Mount Saint Vincent University)

The Power of Controversial Art: Individual Differences in Addressing Controversy

Participants with no artistic training (N=105) viewed images of controversial artworks and wrote descriptions of each: 1) as if describing them to someone who had not seen them before, and 2) with respect to their interpretation of the artist's intent. Interestingly, a number of participants included little to no detail about the apparent controversial nature of the artworks. To determine the factors associated with the inclusion/ exclusion of controversial information, several variables were examined, including self-ratings of emotional response, differences in feeling emotions intensely in daily life, capacity for absorption, and many objective features in their written reports. Although emotional responses to the pieces were not related to mentioning controversial details in either question, a greater tendency to feel emotions strongly was indicative of including such details in both questions. A greater capacity for becoming absorbed in activities was related to including a higher number of controversial details when describing artworks, but not when interpreting artists' intent. The written reports indicated that the fewer emotional words included, the more controversy-related words included (for both description of pieces and interpretations of intent). However, references to cognitive processes were only present in descriptions of artworks with controversial detail, and were not present in reports of intention at all. The implications of these findings for understanding how people process and report (or do not report) controversial information are discussed.

24. Stephane Maclean (Dalhousie University)

P300 sensitive to angular disparity during visuomotor rotation task

The successful performance of goal-directed movement is critical to physical navigation of the world. Recent evidence (Neely & Heath, 2010) suggests that a discrepancy between a visual stimulus and a goal location evokes a visuomotor process where voluntary responses towards a movement goal compete against pre-potent responses towards the sensory cue. Here, we extend this prior research by examining the neural basis associated with the evaluation of the spatial discrepancy between a visual stimulus and a goal location. Specifically, we recorded EEG data during performance of a visuomotor rotation task that required participants to point to either an unrotated or rotated target location. We found that reaches that required visuomotor rotations elicited longer reaction times, longer movement times, and increased endpoint errors. An analysis of the EEG data indicated that the amplitude of the P300 component of the human event-related brain potential was modulated by degree of visuomotor rotation. Specifically, reaches requiring no rotation produced a markedly smaller P300 amplitude than reaches requiring a visuomotor rotation. Not only does our study confirm previous behavioural findings, but it also provides novel evidence that the P300 component is modulated by degree of visuomotor rotation. Given evidence that the P300 amplitude is sensitive to cognitive processing, our results support the hypothesis that a spatial discrepancy between visual stimulus and target location requires enhanced cognitive processing that is not present during spatially compatible stimulus-target movements.

25. Sarah Dolan (Dalhousie University)

Controlling Prosody in Directed Forgetting of Speech Errors

Past research has shown that corrections made by a speaker following commission of an error (e.g. “oh no, I meant...”) permit the listener to intentionally forget the erroneous information while improving memory for the correction itself. However, prosodic cues such as emphasis of the corrective statement could be responsible for the improvement observed for corrections. To explore this possibility, we transcribed and recorded five-minute popular scientific podcasts using computer-generated voices, manipulated to include minimal prosodic cues. Each podcast contained occasional factual errors followed by an immediate self-correction. After listening to the clips, participants were given a surprise test of recognition memory for erroneous, corrective, and reference statements. Although not significant, performance for erroneous statements was below performance for corrective and reference statements; corrections and reference did not differ. We propose that participants were able to successfully intentionally forget the erroneous information, but did not display improved performance for the correct information due to a lack of realistic prosodic cues.

26. Ashley Howse (Dalhousie University)

Not YOU Again! Processing of opponent faces depends on past encounters

When engaged in a competitive game situation, viewing our opponent can sometimes be intimidating. Why is that? Presumably it is because we have information about our opponent - either derived from our own experiences or from hearing about the experiences of others - that leads us to believe that the opponent we are facing is "better" than us and that we most likely will "lose". Here, we sought to use event-related brain potentials (ERPs) to investigate the neural basis of this effect - the impact of previous reward outcomes on the processing of opponents in competitive game situations. We had participants play rock-paper-scissors against six virtual opponents, each of whom used a different strategy. An analysis of our ERP results revealed a difference between wins and losses, the feedback error-related negativity (fERN), in line with previous findings. Interestingly, we found that viewing a "hard" opponent elicited a larger P300 ERP component than viewing an "easy" opponent. While there are several potential interpretations of what this difference means, we propose that the difference in P300 amplitude may be attributed to phasic activity of the LC-NE system (i.e., Nieuwenhuis et al., 2005). Specifically, Nieuwenhuis and colleagues proposed that when faced with a situation in which one needs to make efficient and optimal decisions, there is a phasic increase in the activity of the LC-NE system, in this instance reflected as an increase in P300 amplitude when one views the face of a difficult opponent.

27. Andrew Lehr (Memorial University)

Testing benchmark working memory effects with a new implementation of the primacy model under forward and backward recall conditions

The primacy model is a computational implementation of the phonological loop developed by Page and Norris (1998). Baddeley and Hitch (1974) proposed a system underlying human memory that can be viewed in terms of a central executive, phonological loop and visuospatial sketchpad. As the primacy model fits within this framework, it has been applied to working memory experiments in which order information must be retained. These immediate serial recall tasks typically measure performance when subjects are presented with a list of items that they must recall in forward or backward order. Manipulating particular conditions during list presentation produces differences in performance, which can be analyzed to better understand the mechanisms underlying human memory. The benchmark working memory effects result from four conditions researchers often manipulate in immediate serial recall tasks – these are word length, presence of irrelevant background sound, phonological similarity of items, and concurrent articulation of irrelevant information. Bireta et al. (2010) demonstrated these effects under forward recall conditions but showed they were eliminated or at least attenuated by

backward recall. However, they suggest that the primacy model should predict the benchmark effects for both forward and backward recall. The current study aimed to validate a new implementation of the primacy model by comparing its predictions to the primacy model's simulations. The current model was then extended to fit forward and backward recall data from experiments conducted by Bireta et al. (2010).

28. Shaunda-Lynn Jesso (Mount Saint Vincent University)

Emotions, Valences of Events and the Immediacy Bias in Relation to Self and Others

People generally perceive their daily life experiences as producing either a positive, negative, or neutral valence response. That is, the nature of the event influences the positive or negative characteristics of the associated emotional response. Moreover, people tend to perceive immediate emotions to an event as being more intense than past events of similar valence: this phenomenon is known as an immediacy bias. This study is designed to answer three questions related to immediacy bias and the valence of emotion responses to life events: 1.) Do the emotional responses to real-life news events vary across participants? 2.) Does the strength of the immediacy bias vary for oneself (single participant) depending on the valence of the emotional response? 3.) Does the strength of the immediacy bias differ as a function of emotion valence type for oneself (single participant) when compared to the others (the rest of the participant group). Thirty-three undergraduate students (27 females, 6 males) participated in this study. Participants read the same three news articles summarizing a recent event. For each news event participants indicated whether they experienced positive, negative, or neutral emotions at the time of the event. The second question asked about the intensity of the emotion. The third question queried how emotionally intense one felt compared to others.' The results showed a significant difference between participants' perception of the intensity their own emotions depending on valence type. Own negative emotions were significantly more intense than own neutral emotions. However, there were no significant differences between emotional intensity of own negative and own positive, nor own positive and own neutral. Significant differences for perceptions of own versus others' emotional intensity were found, however, these effects were contrary to immediacy bias effects predictions that perceptions of own emotional intensity would be stronger than perception of the intensity of others'. Participants perceived others' emotions for all events as being significantly more intense than their own responses.

29. Anika Needham-Reece (Mount Saint Vincent University)

The Effects of Text Language Knowledge and Visual Cue on Homophone Identification Skills

With texting (short message service; SMS) becoming so popular among young people in today's society, concern over their literacy skills has been expressed. SMS has resulted in the use of "text language" that ignores grammatical rules. For instance, while texting, homophones often should be used but are, instead, replaced by number and letter combinations (e.g., later = L8r; 2= to, too, two), and a variety of visual cues are used to represent words. The purpose of this research was to examine the effects of knowledge of text language and visual cues on homophone identification skills. Based on their scores on text language skills test (low vs. high), 37 undergraduate students assigned to a visual cue or no visual cue condition to test their homophone identification skills. Interestingly, no significant interactions or main effects were found among the variables. Future researchers would benefit from incorporating standardized text language and homophone tests, as well as obtaining a large and heterogeneous sample.

30. Cassandra Greenslade-McClair (Saint Mary's University)

The Syllable as a Functional Unit In Skilled Reading: A Cross Linguistic Comparison of English-French Bilinguals

The purpose of this study is to determine if the functional unit used for word reading differs across languages, because of the constraints imposed by the particular orthography, and if the first language affects the functional unit used in a second learned language in bilinguals. English monolingual and English-French bilingual participants completed a computerized naming task of one syllable English and French words. We are measuring the presence/absence of three word reading effects: word length effect, neighbourhood size effect, and syllable frequency effect. We expect to see differences in effects across languages and between monolingual and bilingual language speakers.

31. Alisha Hiscott (Saint Mary's University)

A Comparison of the Effectiveness of Preschool Vision Screening Tests

In the current study, 220 preschoolers (mean age = 4.1 years; sd = 0.9 years) were screened with four vision tests: The PlusoptiX SO9 photoscreener, the SureSight autorefractor, the PASS Test 3, and the PVVAT Patti Pics test. A subsample of 17 children (mean age = 4.1; sd = 1.4 year) received a gold standard exam from a team optometrist. Pass/fail classifications based on the screening were compared to the formal diagnoses from the optometric exam. The sensitivity, specificity and accuracy of all four screening tests, and combinations of those tests, were evaluated.

The SureSight autorefractor was found to be the most accurate test (86%) and had the highest specificity (90%), while the PASS Test 3 was the least accurate (63%) and the least sensitive (43%). However, the most accurate test/combinations were the SureSight, the Pass Test 3 + SureSight combination (83%), and the Pass Test 3 + SureSight + PlusoptiX combination (88%).

32. Melanie Hall (Memorial University)

A cost-effectiveness analysis of the PlusoptiX S09 vision screener and the Welch-Allyn Suresight autorefractor.

In the present study, the cost-effectiveness of two vision screening devices, the Welch-Allyn SureSight autorefractor and the PlusoptiX S09 Vision Screener, were compared. The cost effectiveness analysis was based on known disorder prevalence and the screening effectiveness of these two devices in an ongoing preschool vision screening program. As part of this screening program, a total of 220 children (mean age = 4.1 years, s.d. = 0.9 years) have been screened. Sensitivity of each screening device was determined based on 17 participants who completed screening and attended eye exams with research team optometrists. Cost-effectiveness was evaluated by calculating the cost-effectiveness ratio (CER). Specifically, the annual total cost of two hypothetical screening programs using one of each device calculated and divided the number of children with previously undetected disorders that would be identified by each device. The analysis revealed that the SureSight autorefractor possessed superior cost-effectiveness (\$100.71 vs. 140.38 per newly detected case). This superior cost-effectiveness was based on the relatively high sensitivity of the SureSight autorefractor as compared to the PS09 (86% vs. 57%). Thus, the SureSight autorefractor is better at identifying children with previously undetected vision disorders and is the more cost-effective device.

33. Shelley Cornick (Memorial University)

A Comparison of the Effectiveness of Preschool Vision Screening Tests

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the SureSight, the Pass Test 3 + SureSight combination (83%), and the Pass Test 3 + SureSight + PlusoptiX combination (88%).

34. Stephanie Kelly (Memorial University)

New techniques for interviewing young children: The streamlined narrative elaboration technique

Two streamlined versions of the narrative elaboration technique (NET) were tested as a more practical way to interview 3- to 5-year-olds. Twenty-six preschool children attended a short presentation about a pet rabbit and a puppet show. During the event, an interruption occurred leading to an argument about the rabbit. The argument is resolved and the rabbit leaves. The children's recall of the staged event was assessed 2 weeks later using one of four different interview conditions: a full NET interview (n = 6), a streamlined interview using NET cards (n = 7), a second streamlined interview using verbal prompts (n = 6), and a non-NET control interview (n = 7). The interviews were coded for unique units of information (UUI). The results of this study showed that the amount recalled varies by category; children provide a large amount of information about activities and attributes, while virtually no information is provided about other categories, such as time and cognition. An analysis of the data suggests that there is a decrease in the amount of information provided in free recall; however the NET helps to reduce this effect. The findings in this study suggest that the streamlined versions of the NET help young children provide a greater amount of information about a witnessed event. Further research is ongoing.

35. Buseon Kang (Mount Saint Vincent University)

Relationship between Superstitious Rituals and Two Dimensions of Parenting: Parental Control and Parental Warmth

Parenting styles have been categorized as differing along two major dimensions: 1) parental control (level of demandingness and strictness) and 2) parental warmth (degree of support and affection) (Baumrind, 1971). In this study, the potential effects of these two dimensions on the superstitious rituals (i.e., unusual and repetitive behaviour that is perceived by the actor to have a positive effect without any real causal link) many individuals engage in as children were examined. It was hypothesized that individuals whose parents were rated as strict and controlling would perform more superstitious rituals because previous research has found they are likely to perceive a situation as more important than are those whose parents are less controlling (Damien, Bernard, Xavier, & Frédéric, 2011). It was also hypothesized that individuals who rated their parents as exhibiting less parental warmth would engage in more superstitious rituals because they tend to feel they

have less control over situations than do individuals with parents who are more warm and supportive (Keinan, 2002). Undergraduate students (N=41) answered questions about superstitious rituals and completed parenting questionnaires. Degree of parental control did not interact with degree of parental warmth to affect participants' superstitious ritualistic behaviours. In fact, neither parental dimension was significantly associated with ritualistic behaviours. The implications of these findings and directions for future research are discussed.

36. Nicole Webb (Saint Mary's University)

Relationship between Superstitious Rituals and Two Dimensions of Parenting: Parental Control and Parental Warmth

Parenting styles have been categorized as differing along two major dimensions: 1) parental control (level of demandingness and strictness) and 2) parental warmth (degree of support and affection) (Baumrind, 1971). In this study, the potential effects of these two dimensions on the superstitious rituals (i.e., unusual and repetitive behaviour that is perceived by the actor to have a positive effect without any real causal link) many individuals engage in as children were examined. It was hypothesized that individuals whose parents were rated as strict and controlling would perform more superstitious rituals because previous research has found they are likely to perceive a situation as more important than are those whose parents are less controlling (Damien, Bernard, Xavier, & Frédéric, 2011). It was also hypothesized that individuals who rated their parents as exhibiting less parental warmth would engage in more superstitious rituals because they tend to feel they have less control over situations than do individuals with parents who are more warm and supportive (Keinan, 2002). Undergraduate students (N=41) answered questions about superstitious rituals and completed parenting questionnaires. Degree of parental control did not interact with degree of parental warmth to affect participants' superstitious ritualistic behaviours. In fact, neither parental dimension was significantly associated with ritualistic behaviours. The implications of these findings and directions for future research are discussed.

37. Nicole Ali (Acadia University)

Is Religiosity Related to Self-Determination?

This study examined whether religiosity is related to self-determination. Happiness was also measured in order to determine if self-determination plays a role in happiness. Participants consisted of 87 individuals who choose to fill out an anonymous online survey. Participants were all 18 or older and had various levels of education from some high school up to Masters or Ph.D. degrees. There were 74 females, ten males and three of unspecified gender. Forty-four participants identified as subscribing to a specific religion, 18 as agnostic, 20 as atheist, four as

other and one unspecified. The survey consisted of three sub-surveys: the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1997), the Self-Determination Scale (SDS; Sheldon, 1995), and a religiosity scale designed to determine religiosity and belief in religious determination. Scores on the three scales were correlated using linear regression and it was found that both religion and self-determination had a positive relationship with happiness. However, there was no significant relationship between religion and self-determination. Scores on the religiosity scale that was developed were compared against how people self-identified their religiosity and it was concluded that the scale was accurate in measuring religiosity. It was also found by grouping participants by their self-identified religiosity that self-determination only explains a small part of the happiness scores for those who subscribe to a religion, however, for agnostic or atheist individuals, the relationship between happiness and self-determination was stronger.

38. Emma Ells (Mount Saint Vincent University)

Personal Relative Deprivation, Materialism and Greedy Behaviour: A Follow-up Study

High materialists are greedier than lows (Richins & Dawson, 1992; Wachtel, 2003); however, little empirical research has investigated what drives them to act this way. One possibility is that high materialists behave greedily to make up for perceived shortcomings in their own financial standing relative to others (i.e., personal relative deprivation - PRD). To test whether manipulating PRD would lead to greedy behaviour, 90 undergraduates (75 females, 15 males) were led to feel that their discretionary income relative to similar others was either much lower (i.e., disadvantaged), much higher (i.e., advantaged), or about the same (i.e., neutral). PRD predicted greedy behaviour in that participants who were led to feel as though they had less discretionary income compared to similar others took more often from a limited resource (i.e., tokens for a \$10 prize) compared to those in the advantaged and neutral groups which did not differ. There was no interaction between materialism and PRD. However, materialism predicted greedy behaviour when controlling for income level, sex, age, and PRD. These findings suggest that inducing feelings of PRD is a factor in predicting greedy behaviour; however more research is needed to determine how trait materialism is a factor in this relationship.

39. Emma Ells (Mount Saint Vincent University)

The Effects of Group Relative Deprivation and Compensatory Behaviour on Collective Self-Esteem

Collective Self-Esteem (CSE) refers to how highly membership in a group is valued to those who are a part of it (Crocker & Luhtanen, 1990) as well as how positive interactions are with the other members of the group. Individuals often think highly

of in-groups while thinking less highly of out-groups (Wachtel, 2003); however, little empirical research has investigated why when those who do not highly value group membership show higher prejudice to in-group rather than out-group members during experiences of deprivation. One possible explanation for this is that individuals who feel as though their group is being deprived of what another has (called group relative deprivation) seek to act in a way to compensate for that deprivation (Callen, Shead, & Olsen, 2011). To test whether manipulating giving participants a chance to engage in compensatory behaviour would maintain collective self esteem, 77 undergraduates (65 females, 12 males) were led to feel that they had either received an unfair reward during a competition, or a fair reward to evoke feelings of group RD. There was a significant interaction between group RD and compensatory behaviour; of those students who were randomly assigned to experience group RD those that were given the chance to engage in compensatory behaviour had a significantly higher collective self-esteem score than those who did not. These findings suggest that giving people the chance to compensate in some way for their felt deprivation will help them maintain a level of collective self-esteem.

40. Nicole Cranford (Memorial University)

Does the Noradrenergic Antidepressant Desipramine have Addictive Qualities in Rats Following Chronic Administration?

Norepinephrine (NE) is a chemical messenger considered to be a principal component in brain functioning. It is released during states of depression, stress, and addiction, and allows the animal to respond to its environment. Once back to normal threshold, NE transporter pumps reuptake NE back into the cell, where it becomes a target for numerous antidepressants and psychostimulants. Desipramine (DMI), a tricyclic antidepressant, works by selectively inhibiting the reuptake of NE, causing it to remain in the synapse for longer. The lingering of NE in the synapse is associated with reward signals in the brain, which facilitates a desire to seek the means for which the feeling was achieved. Rats were chronically administered DMI (7.5 mg/kg/day) in their drinking water for 90 days to determine the ability of DMI, a selective NRI, to inhibit the upregulation of NE and produce antidepressant-like, or rewarding effects on behaviour. Rats were tested daily during the acquisition phase, and weekly during the maintenance phase on two novel variables: average percentage of volume consumed during test trials over a 24 hour total consumption and average latency to drink. The results showed that rats drink immediately and continuously when given access to fresh DMI-water solution, suggesting that DMI has rewarding properties. Since the phases of addiction were modeled in the current study, it is likely that DMI has addictive qualities when chronically administered to rats. Mapping this onto a human model of addiction, it is possible that humans

being treated for depression with DMI might also find the effects of this drug rewarding enough for addiction to form.

41. Jessica Dwyer (Memorial University)

The Effects of Bilateral Electrolytic Lesions to the Dorsal Tegmental Nucleus on Spatial Learning in Rats

The head direction (HD) signal is believed to originate in the dorsal tegmental nucleus (DTN) and lesions to this structure have been shown to disrupt HD cell firing in other areas along the HD cell circuit. The present experiment investigated the behavioral role of the DTN in spatial navigation. Rats with bilateral, electrolytic lesions to the DTN were compared to sham controls on two tasks that require directional heading. In the first task, rats were trained on a direction problem in water T-maze in which they learned to travel either east or west from two locations in the experimental room. DTN lesioned rats were significantly impaired relative to sham controls, both early in training, on the first block of 8 trials, and on the total trials taken to reach criterion. In the foraging task, rats were trained to leave a home cage at the periphery of a circular table, find food in the center of the table and return to the home cage at the periphery. Again, DTN lesioned rats were impaired relative to sham rats, making more errors on the return component of the foraging trip. These data are consistent with previous cell recording studies and behavioral tests with DTN lesioned rats.

42. Hiliary Martin (Memorial University)

The role of Bcl-x in embryonic cortical development

While apoptosis is an essential component of neural development, it has also been implicated in conditions such as ischemic stroke. Germline deletion of Bcl-2 family, anti-apoptotic gene Bcl-x is embryonic lethal at E13 and these mice exhibit massive neuronal and hematopoietic cell death. However, it could not be determined whether neuronal cell death was due to the loss of Bcl-x or an underlying defect in supporting tissue. The present study was the first to examine the role of Bcl-x in embryonic cortical development using the Cre/lox conditional knockout model (CKO), removing the Bcl-x gene solely from the central nervous system. Apoptotic cell death was assessed in wildtype, heterozygote and Bcl-x CKO mice to determine the role of Bcl-x in embryonic cortical development. Immunohistochemistry (IHC) was used to identify markers of apoptotic cell death at several different stages during the neurogenic period and glutamatergic transcription factors Tbr1 and Cux1 were labelled in an attempt to identify the dying cell population. IHC for apoptotic cell marker active caspase-3 indicated massive cell death in the hindbrain for Bcl-x CKO mice at E13, however extensive cell death in the forebrain was not evident until E17. Findings from the current study indicate that Bcl-x is important for post-

mitotic cell survival as Bcl-x CKO mice demonstrate increased apoptotic cell death of Cux1 positive cells located in layers II to IV of the cortical plate at E17. Future research should investigate the underlying mechanism of apoptotic cell death that occurs with the loss of Bcl-x from the CNS.

43. Michael Sloan (Memorial University)

Ultrasonic vocalizations and behavioural activation in the prediction and expression of 48 hour odor preference memory in neonate rats

Neonate rats spend the first week of life practically immobile, without sight or the ability to hear (Geal-Dor, Freeman, Li, & Sohmer, 1993). They also cannot regulate their own body temperature; however, they do have a sense of smell (McLean & Harley, 2004). Pups rely on their mother for survival and it is essential that they maintain proximity to her. This process is assisted by forming odor preference memories. These memories allow the pups to recognize the smell of their mother so they can stay close for nourishment and warmth (McLean & Harley, 2004). This keen ability to form odor preference memories is utilized by the McLean lab as a model for understanding the behavioural and neural correlates of memory formation. By analyzing behavioural activation and ultrasonic vocalization (USV) production during training and in a 48 hr odor preference memory test, this study evaluated the use of these measures in both the prediction and detection of early odor preference memories. Pups can direct their mother's search efforts towards them by emitting ultrasonic vocalizations (USVs) in hope she will retrieve them when they are isolated from the nest (Brunelli, Shair, & Hofer, 1994). When they are in the nest, pups squirm and struggle for access to their mother and are rewarded with milk, grooming, or warmth. These rewarding stimuli can elicit generalized behavioural activation in which pups will twist, turn, and even flip (Hall, 1979; Sullivan, 1986). In the conditions of our study, pups failed to demonstrate an odor preference memory as indicated by both behavioural activation and USVs observed during training and testing, as well as an additional two-choice odor preference test. It is possible that the pups may be learning; however, we are just failing to observe it. Future research will aim to understand the numerous variables and factors contributing to both learning and USV production in this neonate rat model.

44. Jenna Pittman (Memorial University)

The Effects of Norepinephrine Re-Uptake Inhibition and Status Epilepticus on Levels of Microglia within the Hippocampus using Immunohistochemical Detection of Iba-1

Epilepsy is a common neurological disorder which manifests as spontaneous reoccurring seizures. Similar to other neurological disorders, epilepsy is characterized by increased levels of neuroinflammation, accrued by increased levels

of activated microglia. Temporal Lobe Epilepsy (TLE) is the most common form of epilepsy, largely associated with pathological changes in the limbic structures. In this study a rodent model of TLE was administered, using pilocarpine to induce status epilepticus (SE). Prior to the induction of SE, rodents were chronically administered desipramine (DMI), a Norepinephrine (NE) Re-uptake Inhibitor (NRI). After one month of chronic DMI administration, microglial expression (Iba-1) in the hippocampus was assessed for both non-seizured and seized rodents. In accordance with previous research, an increase in microglial expression was found in H₂O + PILO – SE rodents. Based on previous research suggesting anti-inflammatory and anti-convulsant properties of NE, it was postulated that the administration of NE would lead to a decrease in levels of microglia, and corresponding neuroinflammation after intense seizure activity. The results of this study revealed significant reductions in levels of Iba-1 immunoreactivity within the CA1 pyramidal cell layer of SE rodents receiving a low dose of DMI (3.0 mg/kg DMI + PILO - SE). This study represents the first to investigate the anti-inflammatory role of NE on levels of microglia in the hippocampus of non-seizured animals. No variations in microglia expression within rodents receiving doses of DMI and injections of saline were found in the hippocampus. In accordance with previous studies, this study found an anti-inflammatory role of NE, resulting in the decrease of microglia expression after SE in rodents receiving a low dose of DMI.

45. Casey Losier (Mount Allison University)

Investigating Sensory and Motor Multisensory Enhancement in Consistent Response Conditions

Sensory and motor components of multisensory facilitation were investigated. Eighty-four undergraduates (60 female) aged 18.92 years (SD=1.52) responded to targets by pressing a button contralateral to their location. Responding opposite to targets allows for secondary stimulus to be presented to the same location as the target (sensory enhancement) or to the same location as the required response (motor enhancement). Response times for tactile targets and error rates for auditory targets showed evidence of sensory enhancement. Evidence of motor facilitation was found for error rates in the interaction between response side and secondary stimulus location for the auditory experiment.

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