

48th Annual Ontario Psychology Undergraduate Thesis Conference

**Friday, May 4, 2018
Ryerson University**



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A Welcome from the Chair



Welcome to this annual conference that brings undergraduate psychology students from all over Ontario together to share their research.

Ryerson students have been attending this conference since our first cohort of graduating students in 2010, but this is our first year to host. We are delighted to welcome you to our dynamic and growing campus in downtown Toronto. Take a look around our university in the heart of the city. Some notable stops on your tour: the Mattamy Athletic Centre at the former Maple Leaf Gardens on Carlton Street; the Ryerson Image Centre on Gould Street; and the award winning Student Learning Centre at Yonge and Gould.

With over 200 abstracts submitted this year, everyone is sure to find something interesting, exciting, or maybe even controversial. You will notice certain abstracts have been marked with a star. These oral and poster presentations have been deemed "notable" by a diverse panel of abstract readers based on innovation, scope, impact, or currency of the topic. From our keynote address to kick off the conference to networking reception at the end of the day, we hope you will be able to explore your interests and make new connections.

Finally, a huge thanks to our program committee and all the volunteers who made this day possible.

Enjoy the conference!

Dr. Michelle Dionne, Chair, Psychology, Ryerson University

Keynote Address: Dr. Eric Hehman



Regional Biases: Correlates and consequences

The era of big data has enabled social scientists to test hypotheses at increasingly broad levels of analysis, such as the community, state/province, and nation. This approach can reveal unique insight into notable society-level outcomes that can be associated with psychological factors, such as intergroup biases. In this talk, I will describe the methodological approach to examining regional bias, and then review work finding important associated outcomes with intergroup bias. Finally, I will discuss very recent work finding that government policy (gay marriage legalization) can cause changes in citizens' biases.

Acknowledgements

This conference would not be possible without the following individuals and organizations.

Conference Committee

Dr. Michelle Dionne
Sarah Carmichael
Francesca Grillo
Tara Moloney
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Special thanks for support
from the Faculty of Arts,
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from Sharmaine
McKenzie

General Information

Registration and Information Desk

Starting at 8:00 AM, our conference registration desk will be open on the third floor of the George Vari Engineering and Computing Centre (ENG), 245 Church Street, just outside the Sears Atrium. Here, presenters and thesis supervisors can confirm your participation and collect your conference package, including your vouchers for refreshments. This registration table will remain open as an Information Desk throughout the day. Visit this table or ask any of our volunteers in green t-shirts if you have any questions.

Lunch and Refreshments

Within the conference package you will receive at the conference registration desk, you will get two tickets – one for a boxed lunch and another for a refreshment at our afternoon reception. Between 12:15 PM and 1:30 PM you can pick up your boxed lunch in the Sears Atrium. If you have any serious dietary restrictions, please notify our team at aoputc2018@ryerson.ca by April 30th, 2018.

Ryerson is bottled water free and encourages all its guests to carry a reusable container. We have numerous public drinking water fountains and bottle refill stations throughout our campus, the closest of which to our conference can be found on the first floor of the George Vari Engineering and Computing Centre (ENG), 245 Church Street.

Stay Connected

Complimentary WIFI can be accessed on campus on May 4th, 2018, using the following credentials.

Network ID: RU-Secure

Username: oputcguest

Password: Psychology@Rye2018

Oral Presentations

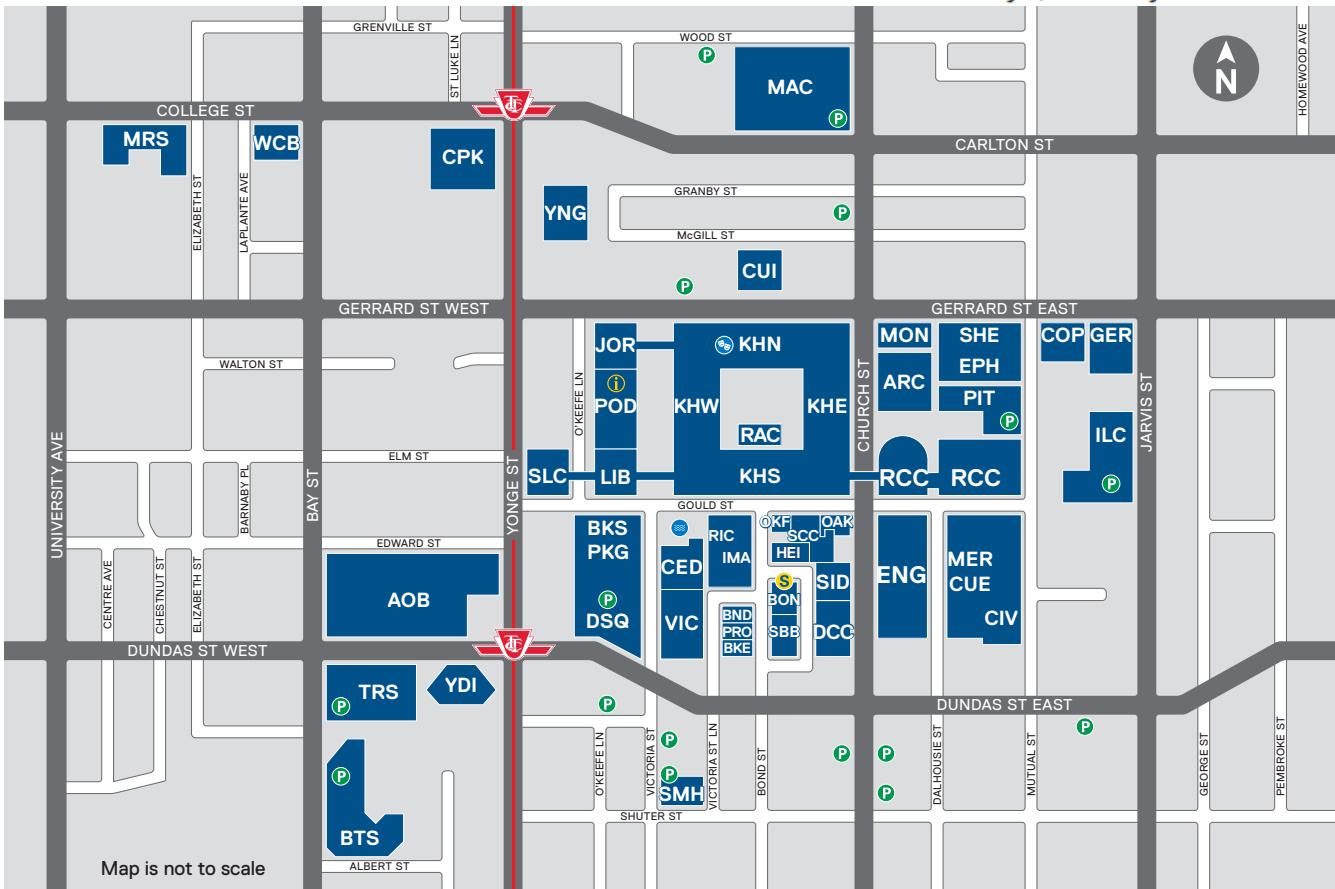
Oral presentations are grouped based on common topics. Each presentation should be 10 minutes, followed by a 3- to 5-minute question period. Time limits will be enforced by the session moderators. Please arrive 10 minutes prior to the start of your session and check in with the moderator in that room. MS PowerPoint is the preferred format for presentations and these should be saved on USB flash drive. If you prefer, you can bring your own laptop for the presentation, but you are responsible for providing the appropriate cables and adaptors.

Poster Sessions

Poster sessions will last 60 minutes, during which time you will be asked to stand near your poster at the assigned poster board number, answering questions and discussing your research with a circulating crowd. We ask that your poster be no larger than 4 feet wide by 3 feet high. Push pins will be provided. Please set your poster up in 10-15 minutes in advance of the start of your session.

Wine and Cheese Reception

From 4:00-5:30 PM, all are welcome to a wine and cheese networking reception, where we will also feature a selection of notable poster presentations.



AOB	Atrium on Bay 20 Dundas St West	DSQ	Yonge-Dundas Square 10 Dundas St East	MAC	Mattamy Athletic Centre 50 Carlton Street	SHE	Sally Horsfall Eaton Centre for Studies in Community Health
ARC	Architecture Building 325 Church Street	ENG	George Vari Engineering and Computing Centre 245 Church Street	MER	Merchandise Building 159 Dalhousie Street	SID	School of Interior Design
BKE	110 Bond Street	EPH	Eric Palin Hall 87 Gerrard St East	MON	Civil Engineering Building 341 Church Street	SLC	Student Learning Centre
BKS	Campus Store 17 Gould Street	GER	Research / Graduate Studies 111 Gerrard St East	MRS	MaRS Building 101 College Street	SMH	St. Michael's Hospital
BND	114 Bond Street	HEI	HEIDELBERG Centre - School of Graphic Communications Management 125 Bond Street	OAK	Oakham House 63 Gould Street	TRS	Ted Rogers School of Management
BON	111 Bond Street	ILC	International Living / Learning Centre 133 Mutual St & 240 Jarvis St	OKF	O'Keefe House 137 Bond Street	VIC	55 Dundas St West
BTS	Bell Trinity Square 483 Bay Street	IMA	School of Image Arts 122 Bond Street	PIT	Pitman Hall 160 Mutual Street	WCB	Victoria Building
CED	Heaslip House - The G. Raymond Chang School of Continuing Education 297 Victoria Street	JOR	Jorgenson Hall 380 Victoria Street	PKG	Parking Garage 300 Victoria Street	YDI	285 Victoria Street
CIV	Civil Engineering Storage 106 Mutual Street	KHE	Kerr Hall East 340 Church St	POD	Podium 350 Victoria Street		790 Bay Street
COP	Cooperative Education 101 Gerrard St East	KHN	Kerr Hall North 31 / 43 Gerrard St East	PRO	Projects Office 112 Bond Street		Yonge-Dundas I
CPK	College Park 424 Yonge Street	KHS	Kerr Hall South 40 / 50 Gould Street	RAC	Recreation and Athletics Centre 40 / 50 Gould Street		1 Dundas St West
CUE	Centre for Urban Energy 147 Dalhousie Street	KHW	Kerr Hall West 379 Victoria Street	RCC	Rogers Communications Centre 80 Gould Street		415 Yonge Street
CUI	Centre for Urban Innovation (under construction) 44 / 46 Gerrard St East	LIB	Library Building 350 Victoria Street	RIC	Ryerson Image Centre 33 Gould Street		
DCC	Daphne Cockwell Health Sciences Complex (under construction) 288 Church Street			SBB	South Bond Building 105 Bond Street		
				SCC	Student Campus Centre 55 Gould Street		

- Undergraduate Admissions and Recruitment
- Security
- Ryerson Theatre
- Lake Devo
- Parking
- TTC Subway Stop

Schedule At-A-Glance

8:00 AM – 8:45 AM	Registration (ENG, Floor 3)	
8:45 AM – 9:45 AM	Keynote Speaker (RCC 204)	
10:00 AM – 11:00 AM	Oral Presentation Session 1	Poster Presentation Session A
	1A: Social Psychology (ENG-LG12)	
	1B: Cognitive Neuroscience (ENG-LG13)	Sears Atrium ENG, Floor 3
	1C: Developmental (ENG-LG24)	
	1D: Forensic Psychology 1 (ENG-LG21)	
11:15 AM – 12:15 PM	Oral Presentation Session 2	Poster Presentation Session B
	2A: Clinical Psychology (ENG-LG12)	
	2B: Sex and Relationships (ENG-LG13)	Sears Atrium ENG, Floor 3
	2C: Health Psychology (ENG-LG24)	
	2D: Cognitive Psychology (ENG-LG21)	
12:15 PM – 1:30 PM	Lunch	
1:30 PM – 2:30 PM	Oral Presentation Session 3	Poster Presentation Session C
	3A: Clinical Psychology (ENG-LG12)	
	3B: Developmental / Cognitive (ENG-LG13)	Sears Atrium ENG, Floor 3
	3C: Stress and Trauma (ENG-LG24)	
	3D: Cross Cutting Psychology (ENG-LG21)	
2:45 PM – 3:45 PM	Oral Presentation Session 4	Poster Presentation Session D
	4A: Educational Psychology (ENG-LG12)	
	4B: Cognitive Neuroscience (ENG-LG13)	Sears Atrium ENG, Floor 3
	4C: Developmental / Clinical (ENG-LG24)	
	4D: Forensic Psychology 2 (ENG-LG21)	
4:00 PM – 5:30 PM	Reception	
	★ Featuring Notable Poster Presentations (Sears Atrium, ENG Floor 3)	

Oral Presentations

Symposium 1A: Social Psychology (10:00-11:00am, ENG-LG12)

Can't Swipe Me Love: Approach and Avoidance Goals Predict Success on Tinder

Julietta Strugo, supervised by: Dr. Amy Muise. York University

Tinder, the mobile dating app, is widely used, but little research has investigated the dating experiences of users. We applied approach-avoidance theory of social motivation to understand the association between goals for Tinder use and perceived and actual dating success. In an exploratory study with 484 (250 men; 234 women) Tinder users, we found that, people with higher approach goals while using Tinder, such as to develop intimacy, perceived greater dating success on Tinder and had more relationships develop from Tinder. One reason was that approach-motivated people had less anxiety when using Tinder. People with higher avoidance goals, including to avoid embarrassment, reported more anxiety using Tinder and consequently, reported less perceived dating success. We are conducting a preregistered replication of this study. The findings provide insight into the role of motivation in dating success on Tinder and reveal a novel mechanism for the association between dating goals and success.

★ Faces of evil: Differing perceptions of dictators and democrats.

Alexander Mulligan, supervised by: Dr. Nicholas Rule & Dr. Miranda Giacomini. University of Toronto

In the present research we examined differences in the faces of dictators and democrat. In study 1, we examined if faces of politicians can be accurately classified as dictators or democrats. Participants were presented pictures of dictators and democrats ($N = 160$) and asked to classify them as dictators or democrats. Participants classified faces correctly 68% of the time, which was significantly above chance. In study 2, we examined what cues people use to classify leaders. In a between subjects' design, participants rated dictators' and democrats' faces on facial maturity, dominance, competence, trustworthiness and likability. A factor analysis revealed two factors: power and warmth. A lens model revealed that participants used cues relating to warmth to classify the faces of dictators and democrats. This study show that people are accurate in their perceptions of dictators and democrats and should be wary of leaders who do not appear warm.

★ Subliminally-Presented Media Images and their Effect on Appearance Anxiety: A Replication of Chatard et al. (2017)

Krischanda Bemister, supervised by: Dr. Stephen Want. Ryerson University

Body dissatisfaction – dysfunctional, harmful beliefs about one's weight and body shape – is prevalent among women in Westernized societies. One source of this body dissatisfaction is thought to be comparisons that women make between their own appearance and the appearance of models in "thin-ideal" media. However, it is currently unknown the extent to which these social comparisons are automatic. The current study was a direct replication of Chatard, Barthélémy, Selimbegovic, & Guimond (2017), who found evidence of increased appearance anxiety in women after exposure to subliminally-presented thin-ideal media images, suggesting that comparisons to these images can be unintentional, fast, and effortless. Using the original design, we found no significant increase in appearance anxiety following 11.76ms exposures to thin-ideal media images. However, our participants, in contrast to those of Chatard et al., showed some awareness of the stimuli. Possible reasons for the discrepant results are discussed.

Examining the Effects of Framing a Reward as "Won" or "Owed" on Probability Discounting

Owen Chevalier, supervised by: Dr. Mark Cole. Huron University College

Weatherly and Derenne (2013) found that students discounted hypothetical money they were led to believe they had won more than hypothetical money they were led to believe they were owed. The present experiment was a replication using real, instead of hypothetical, money. 27 undergraduate students completed a simple task or rolled a die. Participants in the owed condition were told that completion of the cognitive task had earned entry into a lottery worth \$50 with a 5% chance of winning, and participants in the won condition were told that entry into the lottery was contingent on having rolled an even number. Then participants in both conditions were asked if they would accept

\$3.00 now instead of the lottery ticket. Contrary to prediction, participants were no more likely to pick the lottery in the owed condition than in the won condition. Various possible reasons for the outcome were discussed.

Symposium 1B: Cognitive Neuroscience (10:00-11:00am, ENG-LG13)

Comparison of Inhibitory Control during the Morning vs. Evening in Young Adults using EEG

Pirammiya Shanmugathas, supervised by: Dr Nicole Anderson & Dr Jonathon Cant. University of Toronto

Inhibitory control is necessary for everyday activities and ultimately, for successful living. Inhibition is one of the several cognitive abilities of executive function, which control and guide goal-oriented behaviour. Inhibitory function is highly important for suppressing access to irrelevant information or responses that are disruptive to the completion of the current task and allows for the completion of more complex tasks. Two tests of inhibitory control explored in this study are the Go-NoGo task and Flanker task. Various past studies measuring inhibitory control over irrelevant thoughts, unwanted responses, perceptual inhibition, inhibition of distractors in problem-solving tasks, inhibitory efficiency of working memory and susceptibility to distraction have found time-of-day effects in young adults. These findings show that their performance deteriorated relative to their optimal testing times. Hypothetically, major ERP components elicited during the Go-NoGo task are the N200 and P300. For the flanker study, reaction time and accuracy should be superior with the compatible flankers stimuli.

The Role of Horizontal Orientation Information in Infant Face Discrimination

Adina Max, supervised by: Dr. Margaret Moulson & Alexandra Marquis. Ryerson University

Adults recognize, categorize, and discriminate faces better when horizontal orientation information is available compared to vertical orientation information, known as the horizontal bias (Dakin & Watt, 2009; Goffaux & Dakin, 2010; Goffaux et al., 2016; Goffaux et al., 2015; Pachai et al., 2013). Only one study found that infants use horizontal information for category discrimination (i.e., faces vs. cars) (de Heering et al., 2016). We explored whether horizontal information facilitates identity recognition in infancy. Twenty 2.5-month-old infants completed two visual paired-comparison tasks with horizontally-, vertically-, and horizontally + vertically-filtered face pairs of their mother and a stranger. Looking behaviour was coded to determine face preference. We anticipate infants will prefer their mother's face over a stranger's face when upright, indicating successful discrimination between upright face identities, but only when faces contain horizontal information. These findings may suggest that horizontal information supports early face-specific processing and identity discrimination in infancy.

Functional Connectivity Reveals Interactions Between Human Auditory and Motor Brain Networks During Command-Following Behaviour

Claire Honda, supervised by: Dr. Jason Gallivan. Queen's University

While following verbal commands seems effortless in everyday tasks, this belies the complexity of multisensory processes occurring in underlying neural systems. Research on classical conditioning in rodents and visual-motor transformations in primates has provided critical insights into sensory-motor interactions, yet it remains unknown how the brain transforms incoming auditory commands into goal-directed movements. Here, we analyzed data from an fMRI task in which participants learned to map two nonsense speech commands to either a right- or left-handed reach-to-grasp movement; the mapping switched throughout the experiment, allowing us to disentangle neural activity related to the speech command from the motor response associated with that command. Using a functional connectivity approach, we found that correlations between several auditory and motor areas were strengthened when the same speech command guided a contralateral versus ipsilateral hand movement. This result highlights the flexible and interconnected nature of auditory and motor networks during natural human behaviour.

Motion Silencing in 3D

Domenic Au, supervised by: Dr. Laurie Wilcox. York University

Suchow and Alvarez (2011) showed that motion of a stimulus can result in failure to detect otherwise salient stimulus changes. This phenomenon likely reflects temporal integration limits of neurons that encode these properties. To date only 2D attributes have been assessed; it is not clear if this phenomenon could be used to study 3D processing. Here we evaluated whether coherent motion impacts sensitivity to binocular disparity changes. We used a 2AFC paradigm with stereoscopic stimuli displayed in a mirror stereoscope. Columns of dots on either side of a fixation marker alternated in depth. Stimuli were viewed binocularly (3D) and monocularly (2D). We measured the point of subjective

equality (PSE) for the salience of the alternation. Results showed high between observer variability, but an overall shift in PSEs consistent with motion silencing. The bias was larger in the binocular condition. Our results establish that motion silencing is also a 3D phenomenon.

Symposium 1C: Developmental Psychology (10:00-11:00am, ENG-LG24)

Preschool Narrative Ability Predicting Early School Achievement

Taylor Crawford, supervised by: Dr. Nancie Im-Bolter. Trent University

Storytelling reflects children's abilities to understand and organize their everyday experiences. This extends into several different areas of children's lives, which poses a question about the influence that storytelling ability may exert on the development of other skills. This inspired the current study, which aims to identify whether storytelling in preschool predicts later literacy and numeracy skills. A group of 3-year old children were asked to share three stories about their personal experiences, which were analyzed for structure and content. One year later, these children completed early literacy and numeracy tasks. The relationships between the narrative variables and the literacy and numeracy variables were then examined. The results indicate that storytelling in preschool could be a simple method to encourage early school achievement.

Adult Children's Self-Reported Parenting Styles' Prediction of Free Will Belief

Arleen Aksay, supervised by: Dr. Gerald Young. York University

The goal of this study was to investigate how parenting style would predict free will belief among adult children. Considering previous research, maternal authoritative parenting style was hypothesized to predict free will belief; maternal authoritarian and maternal permissive parenting styles were hypothesized not to predict free will belief. There was an exploratory study on gender of the participant. Valid and reliable questionnaires were administered. Participants were students from York University campuses. A univariate general linear model was used to determine predictors on the outcome variable and interactions. Results showed that gender and permissive parenting did not significantly predict free will belief. Both authoritative and authoritarian parenting significantly predicted free will belief. There was a significant interaction with gender and parenting style, in that males reporting authoritative parenting style significantly predicted free will belief. The hypothesis regarding authoritarian parenting was not supported, while the hypotheses concerning authoritative and permissive parenting were.

Three-year-old's attention to the credibility of others

Rocksane Forget, supervised by: Dr. Patricia Brosseau-Liard. University of Ottawa

Children are sensitive to some credibility cues when learning from others. Calibration is the correspondence between a person's confidence and the situation. Only one past study evaluated children's use of calibration with a relatively complex task, potentially underestimating their understanding. The present study investigates whether 3-year-olds prefer to learn from a well-calibrated informant in a simpler task. Videos were presented to 27 children ages 32 to 38 months: showing an adult demonstrating actions with familiar and novel objects, either confidently or hesitantly. Calibration is defined as the correspondence between the informant's confidence and toy familiarity. Imitation was evaluated in a free play session with toys seen in videos. Three one-way ANOVAs demonstrated that participants were not influenced by the informant's calibration in their imitation rate, imitation time or play time. These findings contribute to the understanding of the cognitive skills required for selective learning.

Social Support in Parents of Children with Developmental Disabilities

Melissa Miljanovski, supervised by: Dr. Adrienne Perry. York University

Social support has been found to be related to outcomes in parents of children with developmental disabilities (DD). However, ambiguous conceptualization and measurement of support is evident in the literature. Our study examined the relationship between measures of social support and outcomes (i.e., positive gain and caregiver burden) in parents of children with DD. Data was collected as part of the GO4KIDDS project and the sample included 142 parents of children with DD. Four measures of social support were produced from the GO4KIDDS data: (1) availability of support, (2) frequency of support, (3) helpfulness of support (4) and negative support. Frequency of support was found to be related to positive gain and caregiver burden, while helpfulness of support was only related

to positive gain. Findings suggest the need to distinguish the quantity and quality of support received and for continuous or interval measures of social support to be established.

Symposium 1D: Forensic Psychology 1 (10:00-11:00am, ENG-LG21)

Psychopaths Don't Jump: An Analysis of Psychopathy, Personality, and Fear Enjoyment

Jennifer Young, supervised by: Dr. Angela Book. Brock University

The current study sought to determine whether psychopathy would be positively correlated with fear enjoyment, and negatively correlated with personality traits Honesty-Humility and Emotionality. One hundred and thirty-three Brock undergraduate students (60% women) were recruited through an online research participation website. Participants watched videogame clips from an exciting snowboarding game and a horror game that contained a jump scare. Then participants completed an emotional reactions questionnaire, fear enjoyment questionnaire, self-report psychopathy questionnaire, and personality questionnaire. Correlational analyses indicated that individuals higher in psychopathic traits enjoyed the fear-inducing stimulus more than individuals lower in psychopathic traits. Additionally, psychopathy and fear enjoyment were both significantly negatively correlated with Honesty-Humility and Emotionality. These findings provide further support for the Fear Enjoyment Hypothesis of psychopathy, suggesting that psychopaths experience excitement in fear-inducing situations.

Female Sexual Offenders and Judicial Decision Making

Anthony Battaglia, supervised by: Dr. Mini Mamak. McMaster University

Historically, female sexual offenders (FSOs) have received very little attention among the psychiatric and psychological community. Recently, the increased recognition of the female capacity for sexual offending has led to harsher sentencing and newly redefined laws and charge categories incorporating a wider variety of sex offences. Based on these changes within the Canadian judicial system, a sample of 26 judge's sentencing decisions between 2000 and 2017 have been obtained to investigate the Canadian FSO as she enters the justice system. This goal of this thesis is to better Canadian offender and victim characteristics, and to identify patterns in judge's decision making, with respect to aggravating and mitigating factors that influence and decrease sentencing, as well as the treatment orders and rehabilitation plans put in place. Gaining a better understanding of Canadian FSO population is the first step towards improving rehabilitation and prevention.

Investigating the mechanistic variables linking psychosis and addictive behaviours

Vamika Mann, supervised by: Dr. Michael Amlung. McMaster University

The high prevalence of substance use disorders in patients with psychosis and the association between impulsivity and drug use is well established. This study will examine the link between addictive behavior, psychosis and multiple indices from a standardized clinical screening battery measuring stress management, mindfulness, decision making, and impulsivity in outpatients ($n=142$) who received treatment from a concurrent disorders program. Significant correlations were found between the PQ16 and the delay discounting task involving \$100 and Mindful Attention Awareness Scale ($P<0.05$). The PQ16 was also significantly associated with the Perceived Stress Scale ($P<0.05$) as well as certain sub-scales from the UPPS-P Impulsiveness Scale and Distress Intolerance Questionnaire ($P<0.05$). Positive urgency and delay discounting of \$100 was found to marginally moderate the relationship between psychosis and substance use ($P<0.10$). These data suggest that positive urgency and impulsivity may at least partially account for substance use among adults with psychosis.

Symposium 2A: Clinical Psychology (11:15-12:15pm, ENG-LG12)

★ Psychophysiological Correlates of Emotional Contagion in Social Anxiety

Pam V. Shaw, supervised by: Dr. Martin M. Antony & Ms. Gillian A. Wilson. Ryerson University

Background/Objective: Research indicates that certain emotions are contagious; however, research on the contagion of social anxiety (SA) is limited. Method: One hundred and twenty-eight undergraduate psychology students were assigned to either an experimental or control group (watched a video of a socially anxious or a nonanxious presenter, respectively). Physiological and subjective measures of anxiety were collected, in addition to levels of negative affect (NA), positive affect (PA), public speaking anxiety (PSA), and SA. Results: After controlling for baseline anxiety

levels, the experimental group reported significantly higher levels of NA and anxiety than the control group. Further, higher levels of SA and lower PSA significantly predicted higher anxiety and NA in both conditions. No significant findings in terms of PA were found. Analyses of psychophysiological data are pending. Conclusions: These findings suggest that SA is emotionally contagious, providing further insight into the impact of SA on socially anxious individuals' interpersonal functioning.

A Change in World Assumptions for Posttraumatic Growth

Alycia Horton, supervised by: Dr. Carolyn Hafer. Brock University

People have a set of schemas about how the world works called "world assumptions." World assumptions can be subcategorized into three themes: benevolence of the world, meaningfulness of events, and self. I studied the difference between pre- and posttrauma world assumptions and the relation of this difference to posttraumatic growth. Participants completed the World Assumption Scale twice: according to their beliefs before the trauma and according to their beliefs now. I predicted that, the more negative change in world assumption scores, the greater the posttraumatic growth. Contrary to my hypothesis, the results showed a positive, significant correlation between change in world assumptions and posttraumatic growth. A positive change in benevolence was the best predictor for posttraumatic growth. The findings have implications toward improving treatment for people who have experienced a trauma. Limitations and suggestions for future research are also discussed.

Self-compassion's Impact on Self-Improvement Motivation in Individuals with Elevated Social Anxiety

Lindsey Feltis, supervised by: Dr. Nancy Kocovski. Wilfrid Laurier University

Self-compassion has been continually associated with psychological well-being. This study was designed to examine the impact of self-compassion on self-improvement motivation in individuals with high social anxiety. Undergraduate university students with elevated social anxiety (N=64) were recruited to participate in this study. A speech task was used to elicit anxiety and then participants were randomly assigned to one of three conditions: self-compassion, cognitive reappraisal or control. Lastly, they answered questionnaires regarding their self-improvement motivation. It was expected that participants in the self-compassion condition would show greater self-improvement motivation compared to those in the cognitive reappraisal or control conditions. Preliminary results suggest that individuals in the self-compassion condition do not appear to have greater self-improvement motivation than individuals in the cognitive reappraisal or control condition; however, data collection is ongoing.

Symposium 2B: Social Psychology (11:15-12:15pm, ENG-LG13)

Equity and Relationship Satisfaction

Shaurya Kashyap, supervised by: Dr. Carolyn Hafer. Brock University

In this study, I examined the relation between equity and relationship satisfaction in romantic couples. Previous research has shown that global equity and equity of household tasks are related to relationship satisfaction, however, equity of other relationship domains (such as love) has not been examined. Resource theory suggests that people may distribute certain resources (such as love) through a guiding principle different than equity. The participants were recruited online and completed questionnaires that assessed global equity and equity of other relationship domains, as well as relationship satisfaction. I anticipate the findings will show that global equity and equity of household tasks will be positively related to relationship satisfaction. Also, the correlation between equity of household tasks and relationship satisfaction will be greater than the correlation between equity of emotional concerns (e.g., love) and relationship satisfaction. These findings add to previous equity literature and have implications for relationship therapists.

Fantasy and/or Reality: How Porn Affirms and Challenges Women's Self-Image

Aniqah Rahman, supervised by: Dr. Maria Gurevich. Ryerson University

The pervasive nature of pornography in the contemporary cultural landscape, shaped by neoliberal and postfeminist ideology, has reconfigured women's sexuality to be agentic and affirmed via sexual expression rather than merely passive and subject to male desire. Understanding how women navigate this sociocultural context to construct their relationships with porn is the objective of this study. Specifically, the ways porn is constructed as fantasy and/or reality to affirm or challenge the self image of 15 women. Following a qualitative framework, one-on-one semi-

structured interviews were conducted to obtain results. Women who felt that porn was indicative of a reality that was counter to their accepted self-image experienced conflict in their relationship with porn. Women who reconciled porn with their self-image were able to do so by either delegating it entirely to the realm of fantasy and ‘unreality,’ or by accepting that porn was useful in the construction or maintenance of ‘ideal’ sexual subjectivities.

Adding the Voice of Survivors: Reactions and Opinions to Sexual Violence Prevention Posters

Katie McLaren, supervised by: Dr. Paula Barata. University of Guelph

Some sexual violence prevention materials on campus have been evaluated. However, these evaluations have not included the voice of sexual violence survivors. This study examines if there is a difference between women who have and have not experienced sexual violence on their emotional reactions to and evaluation of sexual violence prevention posters. Participants viewed prevention posters and indicated their mood prior to and after viewing the posters. A mixed-measure ANOVA indicated a significant difference between pre and post mood for negative emotional reaction and a significant interaction between group and mood. Post-hoc indicated a significant difference between women who experienced rape and no sexual violence. There was no significant difference in positive emotional reactions. A one-way ANOVA indicated evaluation of posters was not significantly different between groups. Therefore, prevention posters have an impact on negative emotional reactions for survivors of sexual violence and their voice should be included in evaluation.

How Do Narcissists Try to Change Their Partners?

Natalie Sisson, supervised by: Dr. Justin Cavallo & Dr. Christian Jordan. Wilfrid Laurier University

This study examined how narcissism shapes the implementation and effectiveness of partner regulation strategies in romantic relationships. Participants ($N = 157$) answered narcissism and other personality trait questionnaires online, and were randomly assigned to report the partner regulation strategies they implemented as an agent, or experienced as a target, and the effectiveness of these strategies. Participant reports of strategy use and effectiveness were explored in the agent condition (35 females, 31 males). As expected, regression analyses revealed that narcissism predicted greater use of all strategy types. As hypothesized, the use of negative strategies was predicted by rivalry. Admiration did not predict the use of any strategy. The relationship between greater narcissism and greater perceived effectiveness was mediated by greater indirect positive strategy use. This study revealed the complicated functioning of narcissism in romantic relationships and is a first step towards examining narcissists' partner regulation and which strategies may change narcissists.

Symposium 2C: Health Psychology (11:15-12:15pm, ENG-LG24)

What's in a Name? The Impact of Medical Terminology on Disease Perception

Ivelina Velikova, supervised by: Dr. Karin R. Humphreys. McMaster University

Medical decision-making is a challenging task, and the average person has to make such decisions without any medical training. Misinformation in the media, including fear mongering and stigma, can make such decisions even more challenging. Medical language can influence perception of an illness and a patient's decision to seek help. A disease presented in medical language is considered more severe, more representative of a disease, less prevalent, and more likely to warrant urgent care than the same disease presented in colloquial language. The purpose of the present study is to examine how medical terminology impacts perceived seriousness, prevalence, representativeness, and urgency of a medical condition, and how these variables change over time. Medical terminology were perceived as more serious, more representative of a disease, less prevalent, and more urgently in need of professional care. Interestingly, these effects were reduced for older terms—my thesis explores why.

Exploring Altruism in Patients with End Stage Kidney Disease (ESKD): Transplant-related Knowledge and Willingness to Donate

Candice Richardson, supervised by: Dr. Istvan Mucsi & Dr. Konstantine Zakzanis. University of Toronto

Many patients on dialysis express the desire to donate their organs if they were healthy. This attitude may be influenced by the disease experience and kidney transplant knowledge. In this cross-sectional convenience sample of ESKD patients on maintenance hemodialysis, we used multivariable adjusted logistic regression to assess the association between respondents' transplant-related knowledge and willingness to: (a)sign their donor card, and donate a kidney to a (b)family member, (c)friend, or (d)stranger while they were alive. Of the 231 participants (58%

male, mean age[\pm SD]=59[\pm 13] years), 81% were willing to sign their donor card, and 87%, 68%, and 43% would donate to a family member, friend, and stranger, respectively. Higher transplant knowledge (low, medium, high) was associated with higher willingness to: 1)sign donor card (71%,85%,87%, $p=0.041$) and 2)consider donating a kidney to a friend (56%,70%,79%, $p=0.017$), even after adjustment for covariates.

Cross-behaviour effects of motivational cognitions and behaviours

Daud Zeb, supervised by: Dr. Justin Presseau. University of Ottawa

Applications of social cognition models to understand health behaviour often focus on behaviours in isolation, providing little insight on how multiple behaviours are pursued at once. Performance of health behaviours and their cognitions may predict performance of other behaviours (cross behaviour cognitions). Using the Theory of Planned Behaviour (TPB) as a theoretical framework, this study aimed to investigate how TPB motivational cognitions and their corresponding health behaviours contribute to understanding five different diabetes-related health behaviours. We conducted secondary analyses of responses to a questionnaire completed by people with type 2 diabetes ($N=1504$). Controlling for behaviour-specific TPB cognitions, cross-behaviour cognitions accounted for a small but significant additional variance in each behaviour ($\Delta R^2=0.01$). Performance of other health behaviours themselves also accounted for significantly more variance in each behaviour ($\Delta R^2=0.04$). The findings have implications for designing interventions to improve diabetes self-management, and for moving forward behaviour theory.

The Effects of Mental Health Knowledge and Emotional Intelligence on University Students

Lyndsey Tiffin, supervised by: Dr. Lisa Fiksenbaum . University of Guelph-Humber

Objective: To examine the relationship between mental health knowledge, emotional intelligence (EI), and interest in mental health (MH) within university students. Background: MH concerns have become a growing problem among students and academics. The stigma about MH creates a perception that affects the thoughts about MH self-help actions. Individuals who have higher MH knowledge should have a higher EI. Methods: Data was collected using the Mental Health Literacy Scale and The Assessing Emotions Scale. One hundred and seventeen students completed a seventy-seven item survey to gather information regarding mental health knowledge and EI. Results: Women had a significantly higher MH knowledge compared to males. However, EI scores of both genders were not significantly different. Students who had an interest in MH were more educated. Conclusions: Men are educated on MH but are influenced greater by stigmatized thoughts compared to women. Stigmatized thoughts are a major contributor to university student's MH.

Symposium 2D: Cognitive Psychology (11:15-12:15pm, ENG-LG21)

★ The effect of talker familiarity on speech perception

Grace To, supervised by: Dr. Ingrid Johnsrude & Dr. Emma Holmes. Western University

Listeners frequently face the challenge of understanding a nearby person's speech in a noisy environment. Past research has shown that when a listener is familiar with a talker's voice, they are more likely to understand that talker's speech. However, it is unknown how much a person must be exposed to a voice to exhibit this benefit. In this study, participants were trained on three different voices for varying periods of time. After training, participants were asked to report back sentences spoken by a target talker—either familiar or unfamiliar—while in the presence of an interfering talker. Based on the results, the minimum exposure that is required for listeners to significantly display a familiar voice benefit was approximately 60 minutes. The familiar voice benefit has important clinical implications as people with impaired hearing tend to understand oral instructions best when they are given in a familiar voice.

The Effects of Sleep Deprivation and Probability of Winning on ERPs

Katarina McKenzie, supervised by: Dr. Timothy Murphy. Brock University

Sleep deprivation has negative effects on information processing as evidenced by a reduction in the amplitudes of the P3 (stimuli evaluation), and Pe (error evaluation) and may also affect the detection of errors (ERN). There is little research on sleep deprivation and evaluation of feedback (FRN). In two tasks (Flanker and gambling tasks performed by 20 undergraduate students) we predicted that the probability of winning would interact with sleepiness such that sleepy participants with a high probability of winning would have more comparable P3, Pe, ERN and FRN amplitudes

than with low probabilities. A 2 (sleepy and alert) by 3 (25%, 50% and 75%) ANOVA was performed on FRN amplitudes, and showed that sleepy participants pay more attention feedback of high probability of winning than when alert. This would suggest that increased attention caused by unanticipated outcomes may reduce the deleterious effects of sleep deprivation.

Visuospatial Strategies and Socioemotional Processes

Shanny Foo, supervised by: Dr. Todd Girard & Bev Fredborg. Ryerson University

Visuospatial memory strategies and empathy, although disparate constructs, appear to share perspective-taking as a common underlying process. To examine this, 100 participants completed a computer-generated virtual maze after which they reported their strategy use and daily-life visuospatial habits. The virtual maze conditions successfully elicited the expected strategies as demonstrated in the correlations between participants' reported strategy-use and trait visuospatial tendencies. Questionnaires designed to evaluate the cognitive and affective components of empathy (i.e., the Questionnaire of Cognitive and Affective Empathy and the Interpersonal Reactivity Index) were administered. Cognitive empathy was expected to be positively correlated with egocentric (self-referential) visuospatial strategies whereas affective empathy was expected to be positively correlated with allocentric (environmentally-based or third-person) strategies. Overall empathy scores were also compared to these strategies. The findings will be discussed in relation to individual differences in social interaction styles and the role of perspective-taking between the visuospatial and socioemotional cognitive domains.

Contributions of explicit instruction and creativity to associative memory in older adults

Julia Rybkina, supervised by: Dr. Lixia Yang. Ryerson University

With age, older adults typically experience a decline in associative memory (AM), which is the ability to remember links between pieces of information. This study examined whether older adults' AM can be improved by an explicit verbal instruction to prioritize remembering associations over individual items and whether creativity mediates associative memory in older adults. A sample of 22 participants (65-77 years old) were evenly and randomly assigned to two conditions of learning pairs of unrelated words: prioritizing remembering associations (experimental) or equally valuing remembering associations and individual items (control). They then completed two memory tests (i.e., item memory and associative memory tests). Preliminary results showed better AM performance in the experimental compared to the control condition, suggesting that older adult are able to benefit from a simple association-oriented encoding instruction to improve their associative memory performance. It is also hypothesized that high creativity will be related to better associative memory.

Symposium 3A: Clinical Psychology (1:30-2:30pm, ENG-LG12)

Resilience in Self-Harming Adolescents

Kelsey Davis, supervised by: Dr. Kathleen Pajer. University of Ottawa

Resilience is a unique characteristic of an individual, defined as the successful adaptation or the ability to prevail despite exposure to significant adversity. This study investigated whether adolescent girls who self-harm (SH) score differently on the Adolescent Resilience Questionnaire compared to non-self-harming adolescent girls. Sixty-three girls (mean age=15.52±1.19) were recruited from the Greater Ottawa community. A structured psychiatric interview was used to assign participants to a SH group (n=32) or a control group with no lifetime history of psychiatric disorder (ND) (n=31). Results indicated that girls with SH had significantly lower resilience scores across all resilience domains (individual, family, school, peer and community) than ND participants (all comparisons had p<0.001). This study highlights the differences in resilience outcomes between adolescents with and without SH, suggesting that adolescent girls with SH have lower psychological resilience compared to non self-harming peers. Implications for future research are discussed.

The Relation of Cognitive Structure with Stress-Induced Cognitive Control Deficits in Depression

Sally Zheng, supervised by: Katerina Rnic & Dr. David Dozois. Western University

Minimal research has examined the roles of cognitive structure and cognitive control, specifically updating, in depression. Preliminary findings suggest the importance of both in the onset and maintenance of depression. The present study investigated the relation of cognitive structure with updating in the context of interpersonal stress to better understand their contributions as risk factors. The current study recruited 7 never-depressed, 16 past-

depressed, and 3 currently-depressed individuals. First, participants reported their baseline depressive symptoms and assessed their cognitive structure. Next, participants measured their updating ability, both before and after a laboratory stress induction. Participants returned two weeks later to assess follow-up depressive symptoms. Currently-depressed individuals possessed larger interstimulus distances between positive self-referent content compared to controls, indicating a maladaptive cognitive structure. Maladaptive cognitive structure interacted with stress-induced updating deficits to increase the amount of depressive symptoms at follow-up. Findings are discussed in terms of treatment and prevention implications for depression.

What is the Impact of Family Involvement During Treatment within a Residential Treatment Program for Obsessive Compulsive Disorder?

Montana Vascotto, supervised by: Dr. Marlene Taube-Schiff & Dr. Naomi Koerner. Ryerson University

Introduction: Canada recently launched its first residential treatment program for individuals with severe, treatment-refractory Obsessive-Compulsive Disorder (OCD). To better understand the impact of family involvement within this type of treatment model, we set out to gather patient perspectives of family interventions received within well-established U.S residential treatment programs for OCD. Method: Semi-structured interviews were conducted with five individuals, all of whom had received treatment within a U.S. residential program. Interviews were audio-recorded, transcribed and coded to extract common themes. Results: Three major themes emerged: (1) education; (2) family involvement; and (3) meaningful changes. Participants reported that including family members in treatment provided support, modulated the amount of distress experienced and improved family relationships by reducing family accommodation. Discussion: This study obtained a rich patient narrative regarding strengths and weakness of family interventions within well-established U.S. treatment centres for OCD. Findings may assist program development within emerging residential treatment programs.

Symposium 3B: Developmental / Cognitive (1:30-2:30pm, ENG-LG13)

Age Differences in the Neural Underpinnings of Voluntary vs Involuntary Memory Retrieval

Sarah Henderson, supervised by: Dr. Karen Campbell. Brock University

Voluntary episodic memory relies on intentional retrieval, while involuntary memory requires no conscious effort. Recent work suggests that voluntary memory declines with age while involuntary memory is relatively preserved, however the neural underpinnings have not been established. We used EEG to examine age differences in neural activity during voluntary vs involuntary memory. Twenty-six young (18-30 years) and 22 older adults (65-80 years) learned sound and picture pairs during an encoding session which were later retrieved under involuntary (participants indicated the spatial location of sounds) or voluntary conditions (participants were additionally instructed to recall the associated pictures). Older and younger adults differed in the number of pairs correctly recalled ($p < .001$) but did not differ in the number they said they remembered. Preliminary EEG analyses are presented. Findings suggest that older and younger adults experience a similar number of memories though their content may not be the same.

Cognitive Flexibility and Children's Reasoning About a Future That Differs From the Present

Hana Ziani-Bey, supervised by: Dr. Cristina M. Atance. University of Ottawa

The present study investigated whether 4- and 5-year-olds can represent a future that differs from the present and whether executive function (EF) is associated with this ability. Children made four alternating visits to two rooms — only one contained candy. They were told about an intervening event that would change the status of each room and asked to make a choice about where to place more candy for the following day. Afterwards, working memory and cognitive flexibility tasks were administered. Neither age group placed the candy in the correct room at higher than chance level, age did not predict performance, and no significant correlations were found between EF and episodic foresight. These results challenge the notion that episodic foresight develops before the age of 5 and that it is associated with EF. My discussion highlights a number of explanations for these null results.

★ Impact of developmental shifts in selective attention on learning: Comparing adolescence to adulthood

Danielle Lim, supervised by: Prof. Amy S. Finn. University of Toronto

Although worse selective attention in childhood often hinders learning, recent work has revealed its hidden benefits, in that young children remember task-irrelevant information better than adults. Such work, however, has not extended into adolescence. To examine whether adolescents too remember distracting information better than adults, both adolescent (12- to 14-year-old) and adult (18- to 35-year-old) participants completed a selective attention task, followed by a surprise memory task. In the first task, participants were instructed to detect changes only in cued target objects, while ignoring uncued distractor objects. In the subsequent task, participants were shown a series of objects, and asked whether they had appeared in the previous task, regardless of being a target or distractor. Preliminary results indicate slower response times with distractors present, as well as a trend for greater distractor memory in adolescents. Distractor memory is also negatively related to visual working memory capacity in adults and adolescents.

The Association Between Age-at-injury and Depression in Mild Head Injury Populations

Denise Taher, supervised by: Dr. Dawn Good. Brock University

Previous research has indicated a significant association between mild head injuries (MHI) acquired at a younger age, physiological underarousal, and adverse life events (e.g., emotional dysregulation). Individuals with MHI tend to experience more somatic than affective symptoms of depression. The current study investigated the relationship between underarousal, age-at-injury, and depression. Students from a Canadian university completed a series of questionnaires and provided a recording of their electrodermal activation. Results showed that the earlier age-at-injury group was significantly more aroused than those who acquired their injury after age 15 ($p = .04$). Furthermore, both age groups endorsed more somatic than affective symptoms; however, those with an earlier age-at-injury also endorsed significantly more affective symptoms than the later age-at-injury group, $F(1,85) = 4.02$, $p = .024$, $\eta^2 = .05$. These results contribute to the notion that earlier age-at-injury groups experience more adversity, as their depression presentation is both somatic and affective.

Symposium 3C: Stress & Trauma (1:30-2:30pm, ENG-LG24)

★ Effects of Early Life Stress are Attenuated by Exposure to L.rhamnosus (JB-1)

Indika Somir, supervised by: Dr. Paul Forsythe. McMaster University

Introduction: Alterations in gut microbiota can affect the development of the immune and nervous systems. Microbe-based interventions may attenuate the detrimental effects of early-life stress (ELS), such as immune and neurodevelopmental disorders. This study assessed the impact of early-life stress on anxiety-like behaviour and immunity and determined the potential therapeutic effects of Lactobacillus rhamnosus (JB-1). **Methods:** BALB/c mice were exposed to a limited nesting paradigm. Stressed mice were given JB-1, dissolved in their drinking water, or water alone. They were then subjected to behaviour tests of anxiety-like behaviour. Splenocytes were isolated to assess alterations in immune responses. **Results:** ELS was associated with behavioural changes, decreased stress-induced corticosterone release, and increased inflammation. Treatment with JB-1 attenuated the effect of ELS on anxiety-like behaviour and stress-induced corticosterone release. **Conclusions:** These data demonstrate that exposure to Lactobacillus rhamnosus (JB-1) can attenuate some of the effects of ELS on adult behaviour and stress responses.

How do People Regulate Their Emotions? Psychological Health Outcomes of Individual Differences in Emotion Regulation

Angela Wang, supervised by: Dr. Brett Q. Ford. University of Toronto

Emotion regulation concerns the goal to modulate one's own emotional experience, a multicomponent process that unfolds across time. The extent people benefit from emotion regulation depends first on selecting a strategy with regular frequency, and then implementing that strategy successfully during times of stress in daily life. Empirical investigations have neglected these different components because there is no optimal tool to parse them apart. Thus, the present investigation developed a behavioural measure examining individual differences in strategy selection and implementation. Our study focused on reappraisal – a common and adaptive strategy that involves reframing the meaning of a situation. In a sample of online community participants ($N=240$), people who selected reappraisal more frequently during highly stressful contexts experienced better psychological health outcomes (i.e., less depressive symptoms) but only when they also implemented reappraisal successfully. This suggests that it is critical to evaluate how emotion regulation components interact to predict long-term psychological health.

Transgenerational Trauma or Growth? A Study on Grandchildren of Holocaust Survivors

Sarah Katz, supervised by: Dr. Gerald Young, Dr. Stephanie Marion. York University

The study seeks to understand the ways in which multigenerational trauma affects descendants of a traumatizing event, in this case specifically, whether grandchildren of Holocaust survivors from World War II are indeed affected by the indirect trauma of the genocide, and whether they have since developed resilience from the experience. With this in mind, the study looked at the following variables: participant's Holocaust Exposure (using the Familial Discussion of the Holocaust Questionnaire), Transgenerational Trauma experience (using the Secondary Trauma Scale) and Coping Abilities (using the Ways of Coping Scale). Participants were recruited largely through student campus groups and on social media. The researcher found medium-high positive correlation between Secondary Trauma and Coping Abilities, meaning that when Intergenerational Trauma is present and symptoms are displayed, coping skills increase correspondingly.

An Exploration of the Relations between Past Traumatic Experience and Cognitive Reflection

Ayda Ferdossifard, supervised by: Dr. Douglas McCann. York University

Abstract Based on the studies on stress, it has been shown that stress interferes with performance. One of the main activities that is influenced and interrupted by stress is decision making. The current study investigated the role of past traumatic stress experience on decision making. Decision making was indexed using a variety of tasks, including measures of cognitive reflection, and two other important decision making characteristics, actively open-minded thinking and risk taking. One-hundred thirty six young adults participated in this study. The findings indicated that there was no significant association between past traumatic experience and CRT, however, higher trauma exposure and trauma-related symptoms were associated with higher endorsements of risky behavior. There was no association between trauma exposure and actively open-minded thinking, except for a small correlation with the anxiety sub-scale of TSC-40. Further research is needed to validate the associations between past trauma experience and real-life decision making.

Symposium 3D: Cross Cutting Psychology (1:30-2:30pm, ENG-LG21)

★ Does the End of History Illusion Apply to How Individuals Perceive Their Life Satisfaction as Unfolding Over Time?

Holly Harris, supervised by: Dr. Michael Busseri. Brock University

The 'end of history illusion' suggests that individuals see themselves as improving from the past to the present, but mistakenly predict stability into the future (Quoidbach, Gilbert, & Wilson, 2013). I investigated whether this illusion applies to how individuals perceive their life satisfaction (LS) as unfolding over time. A sample of American adults ($N = 2368$, M age = 56.29 years, 55% female) were surveyed three times over 20 years. At each wave individuals rated their past, current, and future LS. Using a series of mixed-model ANOVAs, I analyzed individual's beliefs about how their LS is unfolding over time and the accuracy of those beliefs. Younger adults overestimated the amount of past and future improvement in their LS, middle-aged adults were relatively accurate, and older adults overestimated the amount of future decline. Thus, none of the age groups exemplified an end of history illusion regarding their LS.

Every-other, Every Time - Rat Imitative Pattern Learning

Peter Khouri, supervised by: Dr. Mark Cole. Western University

Keshen (2011) showed that rats better learned to find visually-distinctive food locations arranged in a circle after watching an expert demonstrator rat forage in the setting. Phillips (2013) failed to find a similar imitative effect when 6 of 12 visually-identical food towers, also arranged in a circle, were consistently baited, but in a random pattern. The present experiment was designed to determine whether rats could display imitative learning using a more-regular pattern. Eight rats were assigned to be either demonstrators or observers. The experimental arena contained 12 identical food towers in a circular formation with every other tower baited. In Phase 1, the demonstrators were free to forage for 50 trials. In Phase 2, the observers were given the opportunity to forage for 20 trials, always after observing an expert demonstrator forage. During their 20 trials, the observers performed better than the demonstrators had during their first 20 trials.

★ Dead or Alive? Sexism in the 2016 U.S. presidential election

Valerie Plante-Brisebois, supervised by: Dr Gordon Hodson. Brock University

The present study used data from the American National Election Survey to investigate the role of sexism in the 2016 American presidential election. Both mediation and moderation models were tested. The sample consisted of 1,916 Clinton or Trump voters (985 women; Mage = 51.78, SD = 17.16) who completed self-report measures of political ideology and hostile sexism. The mediation model predicted that greater conservatism would be associated with greater sexism, and greater sexism would favor voting for Trump (vs. Clinton). All paths were significant, with a significant indirect effect suggesting partial mediation via sexism. The moderation model considered sexism as predictor, political ideology as moderator, and candidate choice as outcome variable. A significant interaction was found, revealing that the more liberal a respondent's ideology, the more sexism predicted votes for Trump. Thus, sexism was a significant factor in both models and clearly influenced the election.

Me or We? The Effect of Team and Individual Sports Activity on Executive Functioning

Alexander McKenzie, supervised by: Dr. Christine Tsang. Western University

There is limited research examining the processes by which open and closed motor skill sports optimize Executive Functions (EFs). The present study aims to examine the effects of motor sequencing and repetitive movement in individual and team sports and their influence on EFs. We tested 40 University students (17 = Male, 23= Female) aged 17-29 (M = 20.47, SD = 2.75) who were randomly assigned to a team and individual sports-oriented intervention focused on either repetitive or variable motor sequential movement. We predicted that the individuals in the Motor Sequence and Team condition would yield the best EF performance. We found an overall main effect of Team/Individual, such that individuals in the Team conditions performed better on the sports task than those in the Individual conditions. We also found a significant main effect of Gender, such that males generally outperformed female participants. These findings have implications for optimizing sport and EF performance between genders.

Symposium 4A: Educational Psychology (2:45-3:45pm, ENG-LG12)

The Impact of Professional Development Groups on Student Counselors' Personal and Professional Development

Sommer Knight, supervised by: Dr. William Newby. Western University

Professional development groups for counsellors in training are composed of members who collaboratively work together to practice counselling skills and improve interpersonal communication. The aim of the present study is to examine student counselors' experiences working in groups and their impact on personal and professional development. Nine counselors were interviewed, and each interview contained a series of open-ended questions related to the research investigation. Specifically, the research questions were: (1) how does the group impact the students' personal development (e.g. self-awareness), (2) how does the group impact the student's professional development (e.g. counselling skills) and (3) what are the students' perceptions of the group format (e.g. instructors)? Data were analyzed using modified grounded theory analysis to produce four core themes: experiential learning, relationships, obstacles and reflection. Findings suggest that professional development groups can impact students' personal and professional growth, and group format plays a role in facilitating trainees' development.

What to teach first: Laparoscopic or robotic surgery?

Sabahat Balaban, supervised by: Dr. Ranil Sonnadara. McMaster University

Literature suggests experience with laparoscopic surgery (LS) can hinder the ability of surgeons to learn robotic surgery (RS). We investigated whether exposing novice learners to an LS simulator (LapSIM) first, hinders performance on a peg-transfer task, compared to those exposed to an RS simulator (MdV-Trainer) first. Undergraduate students with no prior experience were divided into two groups (LapSIM or MdV-Trainer first), and asked to complete a baseline test, training period, and retention test. Performance was measured as relative change in time to completion. Using a 2x2 mixed ANOVA, results suggested no main effect of group ($F_{1,13}=0.84$, $p=0.37$) or simulator ($F_{1,13}=0.49$, $p=0.49$). Despite previous evidence suggesting experience with LS hinders the acquisition of RS skills, our results suggest novice learners can begin training on either technique without negative consequences. Future research must determine at what point prior experience with one technique interrupts the acquisition of the other.

Piloting a Brief Mindfulness-based Intervention for University Peer Leaders.

Abdul K. Mohammed, supervised by: Dr. Jennine Rawana. York University

Introduction: University peer-leaders (PLs) experience additional campus responsibilities that can result in diminished wellbeing. Mindfulness-based interventions (MBIs) are efficacious in improving multiple outcomes in clinical and non-clinical populations. Our pilot extended prior research and evaluated efficacy of a brief-MBI for PLs to improve wellness. **Methods:** Six PLs completed a five-week MBI. Efficacy was assessed by pre and post self-report measures; Patient-Health Questionnaire, Warwick-Edinburgh Mental Wellbeing Scale, Generalized Anxiety Disorder-7, Perceived Stress Scale, Emotion Regulation Questionnaire and Self-Compassion Scale Short-Form. **Results:** Using paired t-tests, significant reductions in depressive symptoms ($p=0.04$, $d=0.98$), and a trend toward significant reductions in wellbeing ($p=0.06$, $d=0.90$) were found. No significant findings were found for the other outcomes ($p>0.05$). **Discussion:** This brief-MBI intervention presents an efficacious option to improve PL wellness. Although this intervention had fewer sessions than typical brief-MBIs, outcomes were consistent with both brief and regular-length MBI. Future waitlist-controlled trials suggested.

Symposium 4B: Cognitive Neuroscience (2:45-3:45pm, ENG-LG13)

Investigating the Relationship Between Mild Head Injury, Physiological Underarousal, and Perseverative Thinking

Blake LaRiviere, supervised by: Dr. Dawn Good. Brock University

Mild head injuries (MHI) make up approximately 70-90% of all reported traumatic brain injuries. When a MHI is sustained, neural connections are disrupted, decreasing functionality; the ventromedial prefrontal cortex (vmPFC) is particularly vulnerable. The vmPFC regulates physiological arousal, and individuals with a previous MHI are found to have lower baseline physiological arousal (i.e., electrodermal activation [EDA]) relative to their age-matched cohort. The Yerkes-Dodson law of arousal and somatic marker hypothesis indicate that physiological arousal is important for optimal performance, decision making, and learning; In this study, baseline EDA and self-reported measures of perseverative thinking were obtained from 40 university students. Head injury status and severity of injury with respect to EDA and perseverative thinking scores will be examined through hierarchical regression. It is predicted that individuals with MHI will endorse greater levels of perseverative thinking than non-MHI individuals and this will be mediated by their level of physiological underarousal.

★ Prediction Error Influences Episodic Memory Reconsolidation

Alyssa Sinclair, supervised by: Dr. Morgan Barense. University of Toronto

Through the process of reconsolidation, reminders can temporarily destabilize memories. In our novel paradigm, we used naturalistic stimuli to demonstrate that prediction error enables adaptive updating of episodic memories. In Study 1, participants (N=48) viewed 18 videos, each depicting an action-outcome event. The next day, we reactivated these memories by presenting the videos again. We found that incomplete reminders, which interrupted videos before the outcome, made memories vulnerable to subsequent interference, producing false memories. In Study 2 (N=408), an independent sample rated qualities of the stimuli. Videos that were more surprising when interrupted produced more false memories. Additionally, strong emotional memories were resistant to distortion, yet were rendered malleable by prediction error. Lastly, in Study 3 (N=24), we tested competing predictions of reconsolidation theory and the Temporal Context Model. Consistent with reconsolidation theory, our effects were crucially time-dependent. Overall, we present compelling evidence that prediction error drives episodic memory reconsolidation.

Evaluation of the Training of Executive Attention: a Clinical Quality Assurance Study

Jennifer Chweiri, supervised by: Dr. Dmytro Rewilak; Dr. Guy B. Proulx. York University

The current quality assurance study examines the effectiveness of the Training of Executive Attention (TEA) program in treating individuals with executive dysfunction arising from different etiologies. It consists of: a) two initial sessions of attention training, b) seven sessions based on evidence-based techniques from the Goal Management Training (GMT) (see meta-analysis by Stamenova & Levine, 2018), and c) two final sessions focusing on patient's personal goals. Pre and post scores on the Cognitive Failures (CFQ), GMT, and Goal Setting (GS) questionnaires will be obtained retroactively from patients' charts (N = 47) and submitted to statistical analyses. It is expected that scores on the CFQ and GMT questionnaires will be significantly lower and scores on the GS questionnaire significantly higher following training.

Empathy-Related Deficits Associated with Age-at-Injury in Individuals with Mild Head Injury

Hadil Nour, supervised by: Dr. Dawn Good. Brock University

After brain injury, affective reasoning is compromised due to ventromedial prefrontal cortex disruption and subsequent reductions in physiological arousal. Those with a younger age-at-injury may be more severely impacted in terms of empathy and perspective-taking. University students completed a series of questionnaires, including a measure of affective and cognitive empathy. Physiological indices of arousal (i.e., electrodermal activation [EDA]) were also recorded. A 2x2 repeated measures ANOVA was used to evaluate the relationship between head injury and empathy. Students with a mild head injury showed significantly lower EDA compared to those without. Affective empathy scores were significantly lower for both age groups compared to cognitive empathy scores $F(1, 85) = 2.97$, $p=0.04$; whereas, the younger age-at-injury group was more likely to preserve cognitive ToM relative to their older cohort. This study demonstrates that despite age-at-injury, emotional empathy is compromised in those with head injury relative to their capacity for perspective-taking.

Symposium 4C: Developmental / Clinical (2:45-3:45pm, ENG-LG24)

A Multidimensional examination of procrastination and delay among individuals with and without Attention Deficit Hyperactivity Disorder (ADHD)

Scott Taylor, supervised by: Dr. Tim Pychyl. Carleton University

Attention Deficit Hyperactivity Disorder (ADHD) and procrastination are often discussed in relation to problems with self-regulation and executive functioning (EF). The small body of extant research that has explored the relations between these variables has many limitations particularly in terms of the samples used and the measurement of procrastination. In this study, we recruited a sample of undergraduate students with a confirmed clinical diagnosis of ADHD ($n = 48$, 66.7% females) as well as a sample of student volunteers without ADHD ($n = 68$, 75.8% females) to investigate the relations between ADHD subtypes, EF, procrastination and other forms of delay. We used the newly developed Multidimensional Measure of Academic Procrastination and Delay Questionnaire. As hypothesized, the results revealed that individuals with ADHD displayed significantly more irrational delay, general procrastination and academic procrastination compared to individuals without ADHD. This study contributed to the research literature indicating that individuals with ADHD struggle with procrastination as a result of symptoms of ADHD and EF deficits. These results provide support for adopting a new language when describing procrastination problems among individuals with ADHD, and they have implications for the nature of academic accommodations and interventions for individuals with ADHD.

The Relative Contribution of Inattention and Impulsivity to Positive Illusory Bias in Youth with Learning Disabilities

Leah Sack, supervised by: Dr. Karen Milligan. Ryerson University

Learning disabilities (LDs) are neurodevelopmental disorders that negatively impact academic ability, and for some social and emotional well-being. Despite challenges in these domains, some youth present with an inflated estimation of their self-competence, termed positive illusory bias (PIB). PIB can impair the ability to face and overcome challenges. Inattention and impulsivity are theorized to increase risk for PIB, however this has only been explored in youth with ADHD, limited to academic PIB, yielding inconclusive results. This study addressed these limitations by exploring the relative contributions of inattention and impulsivity to PIB in academic, social, and emotional/behavioural domains in 23 youth (11-14 years old) with LDs. Findings indicated that both inattention and impulsivity significantly predicted PIB in the social domain, and that the co-occurrence of processing challenges was associated with the greatest level of risk. Implications for future research and clinical practice will be discussed.

The Impact of Maladaptive Behaviour(s) on Parents of Children with Developmental Disabilities

Lucia Chiara Limanni, supervised by: Dr. Adrienne Perry. York University

Previous research has indicated that parents of children with developmental disabilities (DD) experience higher stress levels than parents with typically developing children (Lopez, Clifford, Minnes, & Ouelette-Kuntz, 2008). Child characteristics shown to be largely related to both positive and negative parent outcomes. The current study examines the influence of child characteristics, with a specific focus on maladaptive behaviour types, on positive and

negative parental outcomes in caregivers of children with DD. Data collected from 192 caregivers with children age 3-19 ($M=10.73$, $SD=3.49$) who participated in the Great Outcomes for Kids Impacted by Severe Developmental Disabilities (GO4KIDD) research project. Regression analyses indicated that specific maladaptive behaviour types accounted for 16.2% of the variance of parent distress and 5.7% of the parental positive gain over and above the other child and parent characteristics. These results suggest that maladaptive behaviour(s) impact but are not the only predictors of parental distress and positive gain.

Identification of Emotional Expression in Pediatric-Onset MS Patients

Iulia Niculescu, supervised by: Dr. Christine Till. York University

Difficulty identifying emotional expression, and symptoms of emotional distress are reported in pediatric-onset multiple sclerosis (MS) patients. The present study examined whether symptoms of emotional distress exacerbate or improve identification of emotional expression. 54 pediatric-onset MS patients (mean age = 18.6) and 43 healthy controls (mean age = 17.5). Reaction time (RT) and accuracy were measured on two tasks requiring differentiation or recognition of specific emotions (fear, happy, sad, disgust) using the Pennsylvania Neurocognitive Computerized Battery. Depression and anxiety were assessed using a 14-item questionnaire (P-ED or HADS depending on age). Overall, groups did not differ on either task with respect to RT or accuracy. However, when the tasks were analyzed by emotional valence, patients were slower in their recognition of sadness relative to controls. Higher levels of emotional distress were correlated with accuracy in recognizing fear among MS patients ($r=0.31$), suggesting that emotional distress may heighten alertness to fear.

Symposium 4D: Forensic Psychology 2 (2:45-3:45pm, ENG-LG21)

Distinguishing Between Leaders and Followers in Youth Criminal Groups Based on Facial Cues

Ana Cojocariu, supervised by: Dr. Eric Hehman & Jessica Sutherland. Ryerson University

Youth commit crimes with peers more than any other age group. Criminological theories suggest that youth criminal groups involve leaders and followers. Perceptual psychology has further shown that leaders in non-criminal groups display specific facial characteristics and cues indicative of leadership status. We tested whether facial cues were similarly good predictors of leadership status among youth criminal groups. In study 1, individuals rated the faces of youth involved in criminal groups based on attractiveness, dominance, physical strength, trustworthiness, and warmth. In study 2, individuals were asked to select the leader from a group of faces. Our preliminary results indicate that dominance and strength are key facial features that predict leadership, but that individuals are frequently incorrect when identifying group leaders. This suggests that facial cues indicating leadership traits may be similar across populations, but that individuals use other cues to select leaders from youth criminal groups.

Psychopaths don't jump: Support for the fear enjoyment hypothesis

Victoria Wattam, supervised by: Dr. Angela Book. Brock University

Recent research supports the Fear Enjoyment Hypothesis (Hosker-Field, Gauthier & Book, 2016), which suggests that rather than lacking fear, psychopaths enjoy the subjective experience of fear. I predicted that psychopaths would report more positive emotions during a fear-inducing video, and show less jaw widening (fear) overall compared to non-psychopaths. Participants included 133 undergraduates (52 male, 81 female) from Brock University, with a mean age of 20.63 years ($SD = 5.92$), and majority Caucasian (64.71% Caucasian). Participants were shown two videos, one fear-inducing and the other exciting, on a Virtual Reality headset while their faces were recorded. Measures of subjective emotional experience, psychopathy, and fear enjoyment were collected. Factor 1 (affective and interpersonal) psychopathy was positively correlated with excitement and negatively correlated with fear for the fear-inducing video. These findings support the Fear Enjoyment Hypothesis, suggesting that psychopaths enjoy the subjective experience of fear which has implications for treating psychopaths.

A SIMulation of Psychopathy: How Psychopaths Deal with Different Personality Types

Emily Toll, supervised by: Dr. Angela Book. Brock University

The present study aimed to further research and find support for the Cheater-Hawk Hypothesis, which states that psychopaths will use both manipulation and aggression during their interactions with others (Book & Quinsey, 2004). A total of 145 undergraduate students from Brock University participated in the study. Participants completed a self-

report psychopathy questionnaire and played 20 minutes of the Sims 3 where their character was placed in a house with four other pre-made characters: the hawk, dove, cheater, and cooperator. Interactions with these characters were coded for aggressive and manipulative behaviours. Individuals high in Factor 1 and Factor 2 of psychopathy displayed aggressive and unfriendly behaviours towards the other characters, but no significant correlations were found with the manipulative behaviours, thus, finding partial support for the Cheater-Hawk Hypothesis. This demonstrates that individuals high in psychopathic traits behave differently in response to the specific traits of the individual they are interacting with.

Poster Presentations

Poster Session A (10:00-11:00am, Sears Atrium)

(1) Exploring the Impact of Cultural Values on the Mental Health and Help-Seeking Behaviors of South Asians

Shalyn Isaacs, supervised by: Dr. Alexandra Rutherford. York University

The purpose of this research study is to explore the impact that South Asian cultural values have on the mental health and help-seeking behaviours of post-secondary students of South Asian background. A qualitative methodology was used to gather data through conducting semi-structured interviews among 15 participants who identified as South Asian. Interviews explored how cultural values impact the participants' mental health, how participants navigate between different South Asian and Canadian cultural contexts, and the manner that certain cultural values influence their willingness to seek help when struggling with mental health issues. Thematic analysis was used to find that the mental health of South Asian females is impacted by greater cultural responsibilities placed upon them, help-seeking is tied to receiving parental support, and South Asians are capable of challenging values that limit their individual potential. Providing additional resources and support regarding mental health to the South Asian community would be beneficial.

(2) What Makes a Bully: Personality Moderators of Bullying and Power in Adolescents

Emalee Majnarich, supervised by: Dr. Andrew Dane. Brock University

This study investigated if gender and the personality traits Honesty-Humility, Agreeableness, and Emotionality moderated the relationship between physical power and physical bullying, as well as between social power and a combination of verbal, relational and physical bullying. We suspected that those with high levels of these traits would be unwilling to bully, regardless of power. Three hundred and ninety-six adolescents, were recruited through extracurricular activities. Participants filled out a battery of questionnaires online at home. Hierarchical regressions indicated that Honesty-Humility and Agreeableness predicted composite bullying when social power did not, and that gender predicted physical bullying when physical power did not. Although the predicted interactions were not found, significant interactions demonstrated that, in certain circumstances high power individuals were less likely to bully. Results will be discussed regarding the role of Honesty-Humility and Agreeableness in bullying, and the reasons why power did not increase the likelihood of adolescents bullying.

(3) Spiritual Well-Being as a Predictor of Emotional Impairment Following Mild Traumatic Brain Injury

Mina Xie, supervised by: Dr. Konstantine Zakzanis. University of Toronto

Depression and anxiety symptoms are common after mild traumatic brain injury (mTBI) and are associated with functional disability. Although the incidence of emotional impairment following mTBI is well documented, most researchers have focused on variables that are not amenable to treatment. The purpose of this study is to investigate whether spiritual well-being (SWB) leads to a reduction in anxious and depressive symptomatology post-injury. It was hypothesized that religious factors as well as existential factors would independently predict depression and anxiety. Correlational and multiple regression analyses were conducted with a sample of 83 litigating examinees who had undergone neuropsychological testing to assess their present functioning secondary to mTBI. Predictors included the Existential Well-Being (EWB) and Religious Well-Being (RWB facets of the Spiritual Well-Being Scale. Criterion variables were the Beck Depression Inventory-II and the Beck Anxiety Inventory. EWB significantly predicted depressive symptomatology. Neither EWB nor RWB were predictive of anxious symptomatology.

(4) The Standardization of a Curriculum of Meaning Making: An Investigation into Integrated Classrooms

Fotini Vlahos, supervised by: Dr. Ron Sheese. York University

Recently, there has been a push towards total integration in high schools. Atypically developing students are now attending mainstream classes. Teachers will need to adapt to this change in order to still effectively teach their students. Previous research has focused on best practices for typically and atypically developing students respectively, however little research has been conducted on best practices for integrated classrooms. To begin this

research, snowball interviews were conducted with Durham District School Board high school teachers. Several themes were extracted from these interviews, the main critiques being the need for more teacher education, the need for more in class support, that changes to benefit one student tend to be beneficial for all students, and that a diagnosis is not an excuse, but a tool to help the student learn. Further research is necessary to continue parsing out the missing pieces and practical experience of high school integration.

(5) How Task Signal Strength and Self-Knowledge Predict Accurate Metamotivation

Jill Marenger, supervised by: Prof. Abigail Scholer. University of Waterloo

Metamotivation—how individuals monitor and manage motivational states in pursuit of their goals—is part of successful goal pursuit. Prior work suggested that individuals have accurate metamotivational knowledge about when qualitatively different motivational states (eagerness, vigilance) would be most beneficial for task performance (Scholer & Miele, 2016). Specifically, individuals recognize that eagerness would be better for tasks like brainstorming, and that vigilance would be better for tasks like proofreading. However, little is known about the situational and individual factors that may contribute to more or less accurate metamotivation. Two studies investigated the role of task signal strength (i.e., how easily people can detect a given motivational affordance) and mindfulness in predicting accurate metamotivation. As predicted, participants exhibited greater metamotivational accuracy for tasks higher versus lower in task signal strength. However, there was no strong evidence that mindfulness was associated with metamotivational accuracy. Implications for future work on metamotivation are discussed.

(6) False Memory for Categorized Words and the Role of Directed Forgetting

Amanda Montagliani, supervised by: Dr. William Hockley. Wilfrid Laurier University

Previous studies have been able to show false recall for critical words that were not presented in studied lists of semantic category exemplars (Smith et al., 2000). The purpose of the current study was to test if directed forgetting could influence false memory for exemplars not presented in categorized word lists. This study used an item-based directed forgetting method, and consisted of two experiments using two different types of recognition tests: 2AFC and yes/no. Results showed directed forgetting effects for categorized words, and in the false alarm rates. The results also suggest that directed forgetting extended into entire semantic categories, including words that were not presented at study. These findings confirm that directed forgetting is able to influence false memory in categorized words.

(7) Needs Assessment of Agencies Serving Youth Aged 15-24 with Moderate- to High-Functioning Disabilities in the Kingston Area

Sarah Elliott, supervised by: Dr. Christian Keresztes. St. Lawrence College

To guide service planning, a collaborative group of local agencies requested a service gap and capacity assessment for youth with disabilities functioning at moderate to high levels in the City of Kingston, and the Counties of Frontenac, and Lennox and Addington. Eleven of eighteen invited agencies (61%) completed an online survey about the capacity of their programs, and perceptions of this target population's needs for programs and services. Although a wide range of programs/services were available, the majority were reported to be at or over capacity. Agencies consistently identified a need for more behavioural programming. Other gaps were identified in programs and services for: community integration/socialization, pre-employment/employment, supported/independent living, and life skills. Agencies reported using different definitions of disability, which may impact program/service funding and system navigation for youth with disabilities at moderate to high levels of functioning.

(8) Morphological Processing in Prefixed English Words

Suvin Tam, supervised by: Dr. Stephen J. Lupker. Western University

Previous literature on morphological processing of written words has focused on suffixed words, providing empirical evidence of a “morphological decomposition” process during reading. The aim of the present experiment was to investigate the morphological decomposition hypothesis when reading prefixed English words. A masked priming lexical decision task was used, with prefixed words as primes and their stems as targets. As in the previous literature (e.g. Rastle et al., 2004), prime type (semantically transparent, e.g., refresh-FRESH, semantically opaque, e.g., reply-PLY, and orthographic form, e.g., tulip-LIP) and prime-target relatedness (related or unrelated) were manipulated. Significant priming was found for transparent primes, slight inhibition for opaque primes, and significant inhibition for form primes. Results suggest that orthographically-based morphological decomposition may occur for prefixed words,

however, the form prime inhibition effect highlights the need for current theories of morphological processing to account for the impact of lexical competition.

(9) Shared Beliefs and Construal Level: The Proposed Association Between What a Group Believes and How They Reason

Alexander Moore, supervised by: Mr. Abdo Elnakouri & Dr. Ian McGregor. University of Waterloo

Unlike other animals, the success of a human society is heavily impacted by what the group believes. Widely shared beliefs, such as cultural norms and political ideologies, are critical determinants of a group's success. Furthermore, there is increasing evidence that over time a group's shared beliefs interact and coevolve with individual cognitive processes for members of the group. Reviewing evidence from multiple psychological theories, I propose that a group's shared beliefs can affect how members of the group construe the world around them. Highlighting that restrictive and unrestrictive shared beliefs lead to different evolutionary pressures on individuals, I outline a theoretical case proposing that highly restrictive shared beliefs lead group members to adopt a low level of construal, whereas less restrictive shared beliefs lead group members to adopt a high level of construal.

(10) Optimal SexHEI-ness: Validation of the Sexual Hedonia and Eudaimonia Inventory (SexHEI)

Michelle Hkayem, supervised by: Dr. Emilie Eve Gravel & Dr. Elke Reissing. University of Ottawa

Multiple areas of research have integrated both hedonic and eudaimonic dimensions into their conceptualization of well-being, as both are necessary for optimal human flourishing (e.g. Vittersø & Søholt, 2011). However, sexuality research has yet to integrated eudaimonia in its conceptualization of sexual well-being, thus limiting our understanding of sexual flourishing. This study will investigate the psychometric properties of the Sexual Hedonia and Eudaimonia Inventory (SexHEI; Gravel, 2013). University students ($N = 529$, $M = 19.9$, $SD = 3.25$) were asked to complete an online anonymous questionnaire at a time and place of their choosing. Results from factor analysis suggested a four-factor solution: hedonia, eudaimonia, relationship, and sexual function. All of the factors demonstrated acceptable reliability. Concurrent validity analyses revealed significant and positive correlations between SexHEI factors and other measures of sexual, relational, and global well-being. Theoretical and practical implications for positive psychology and sexuality research will be discussed.

(11) Optimizing the Learning of Concepts through Hybrid Practice Schedules

Mrinalini (Meera) Sharma, supervised by: Dr. Joseph Kim & Dr. Faria Sana. McMaster University

Interleaving problems of different to-be-learned concepts (a1c1b1c2b2a2b3c3a3), rather than blocking the problems by concept (a1a2a3b1b2b3c1c2c3), enhances concept learning because it promotes the identification of between-concept differences. While the majority of research reports better learning under interleaved practice, some studies also report a learning benefit for blocked practice because blocking promotes the noticing of within-concept similarities. In the current study, we address how both practice schedules, when combined, can optimize concept learning. In the current experiment, participants practiced problems of various statistics concepts in one of three ways: all interleaved, all blocked, or blocked to interleaved. On the final test, they were given new problems and asked to classify them based on the appropriate statistics concept. Final test performance was highest when concepts were practiced through the hybrid schedule, suggesting that perhaps participants need to initially encode within-concept similarities (through blocking) before they encode between-concept differences (through interleaving).

(12) Cognitive Psychology and Smartphone Use

Sophie Wharmby, supervised by: Dr. John Paul Minda. Western University

This study attempted to replicate a recent publication supporting the negative impact of smartphones on cognition. Using a 3 (Phone Location) X 2 (Phone Power) design. It was hypothesized that the closer participants were asked to keep their phones to their person the worse their performance would be, in a harder task (OSpan) but not an easier one (Go/No-Go task). It was expected that when participants were asked to keep their phones on they would perform worse than those with their phone off. It was expected that participants who self-reported as more dependent on their phone would show the lowest scores. No main effects of phone location ($p = 0.285$), or phone power ($p = 0.317$) were found with regards to the OSpan task. No significant effects of phone location ($p = 0.251$), or power ($p = 0.614$) were found with regards to the Go/No-Go task. The mediation of smartphone dependency was not explored.

(13) The Functional Nature of Theoretically Decorative Common Tone Chords

Konrad Swierczek, supervised by: Dr. Matthew Woolhouse. McMaster University

Music, like language, has a distinct grammatical structure. Music cognition research suggests that our brains have expectations for which chords are more likely to follow each other in a given context. For centuries, composers have written works that deviate from the key of the piece, creating rich, unusual harmonies. However, many of these deviations have eluded formal categorization. We propose that harmonies such as common-tone diminished sevenths and augmented sixths can be derived using “tritone substitution”—a process of transposing notes by the interval of a tritone. Using ABX design, an experiment was performed to determine if subjects perceive such harmonies as functionally related to their theoretical parent chords. Data analysis is currently underway. Should participants judge tritone-substituted harmonies as more similar to their parent than chords with other relationships, it would provide compelling cognitive evidence of the perceptual importance of tritone substitution.

(14) The Distracting Effects of Smartphone Notifications on Parental Sensitivity

Henry Jang, supervised by: Dr. Yvonne Bohr. York University

This study examined how cognitive distraction in the form of unchecked smartphone notification sound may affect the attention of emerging-adulthood caregivers in a context where they are required to sensitively respond to a robot infant. Participants, who were screened online for attachment anxiety and attachment style, included smartphone users with low attachment avoidance scores.

(15) Beliefs and Attitudes Towards Individual Computerized Cognitive Training

Sharon Yoon, supervised by: Dr. Goghari. University of Toronto

In recent years, computerized cognitive training has grown in users, advocating exercises that allegedly improve cognitive function while research supporting these allegations has shown to be controversial. Due to the limited research on consumer's attitudes and beliefs despite its influence in biasing training outcomes, for this study we evaluated present beliefs, attitudes, and current usage of computerized cognitive training programs in a younger demographic. A questionnaire hosted on SurveyMonkey was administered to 95 University of Toronto SONA participants (60% females, 40% males), with ages ranging from 17-27, from which 39% of participants were current or previous users. The most popular reason for starting and continuing use were curiosity (32%) and enjoyment (38%) respectively. On average, users rated their experience as close to neutral, with slightly less than matched expectations. Additionally, both non-users and users expressed overall neutral attitudes and beliefs towards the potential positive benefits of cognitive training.

(16) Exploring Intralexical Meaning: Relationships Between Headedness, Transparency, and Semantic Neighbourhood Variables in English Compound Words.

Katherine R Matchett, supervised by: Dr. Lori Buchanan. University of Windsor

Understanding how meaning is extracted from written words is an issue of central interest to cognitive psychologists, and the study of compound word reading offers unique perspectives to this end. The present archival study represents a step toward the scientific understanding of what happens in our minds when we read compound words. An statistical cross-examination of various subjective and objective metrics assumed to describe the intralexical (within word) semantic relationships of English compound words is conducted, as well as comparisons between these constructs and behavioural data from the English Lexicon Project (Balota et. Al, 2007). We uncover relationships between morphological headedness, transparency categorization, and semantic neighbourhood variables.

(17) Efficiency under pressure: Preferences for self-regulated learning strategies of mindful versus stressed students

Marissa Fryer, supervised by: Pier-Eric Chamberland. University of Guelph-Humber

In the everlasting struggle to balance academic achievement and valued personal goals (Grund et al., 2014), undergraduate learners tend to use study techniques to save time under pressure rather than to promote retrieval (Wissman et al., 2012; Karpicke, 2012). As mindfulness was found to enhance learning of new tasks (Kee & Liu, 2011) and foster psychological adjustment in school (vanderRiet et al., 2015), this study aimed to test whom, between mindful and stressed students, would use efficient self-regulated learning techniques the most. Correlation analyses in a 26-students sample revealed that mindful students made more efficient choices in both time management ($r=.527$) and retention strategies ($r=.526$), which likely explains lower test anxiety ($r=.507$). Conversely, stress was negatively associated with effective learning strategies ($r=-.694$) and mindfulness ($r=-.518$). While the

small sample justifies caution, results suggest that being mindful enhances learning pace and strategies, and helps manage stress during undergraduate studies.

(18) Relation between Working Memory and Implicit Learning in the Contextual Cueing Paradigm

Smruthi Venkateshan, supervised by: Dr. Hong-Jin Sun. McMaster University

Implicit learning occurs in an incidental manner without the participant's awareness. Implicit learning's relationship to working memory remains unclear and relevant research has been inconclusive. The purpose of this study is to add to the literature on working memory and implicit learning. Specifically, how relational working memory relates to implicit learning. We propose that adding a relational binding component to non-spatial working memory tasks will reduce learning. All participants were asked to concurrently complete an implicit learning with a working memory task. Each participant was assigned a different working memory that either involved relational working memory or did not. Our results show a trend consistent with our hypothesis in that participants who performed the implicit learning task concurrent to a relational working memory task showed reduced learning.

(19) Post-Encoding Delay Effects on Verbal overshadowing

Anca Zgardau, supervised by: Dr. Harvey Marmurek. University of Guelph

Verbal overshadowing refers to the negative effect of providing a verbal description of a face on subsequent recognition. To study the effects of a post-encoding delay on verbal overshadowing, we varied the delay between studying the face and providing the verbal description. 156 undergraduate students watched a video of a bank robbery, completed a crossword puzzle for either 1 or 10 minutes, then provided a description of the robber's face or completed an unrelated control task before identifying the robber in a lineup. Although increasing the delay improved facial recognition, it did not eliminate verbal overshadowing. In addition, we looked at the quality of descriptions provided by looking at the diagnostic details (i.e., details unique to the target in the lineup) included in the descriptions. It was found that the diagnostic quality of descriptions increased with the post-encoding delay and may account for more accurate identifications following verbalization.

(20) The Effects of a Mindfulness Intervention on the Outcomes Associated with Abusive Leadership

Hannah Macdonald, supervised by: Dr. Kate Dupre. Carleton University

Given overwhelming evidence that abusive supervision at work is widespread, and has many consequences for individual, health and organizational outcomes, interventions that focus on mitigating the negative outcomes associated with abusive supervision are important. Because mindfulness is an effective intervention for buffering negative emotions following an unpleasant trigger, the present study explored the effects of a mindfulness intervention on an abusive leadership event. Participants in the experimental group were randomly placed into an intervention featuring a mindfulness inducing script, followed by a brief abusive supervision vignette. Results indicated that the intervention did not affect the outcomes explored, which may suggest that abusive supervision has such a profound impact on individuals that a more powerful intervention is needed. Future research implications, including the need to focus on reducing negative leadership behaviours, are discussed.

(21) The Relationship Between Facial and Vocal Attractiveness Among Women Who are Singing

Samra Rehman, supervised by: Dr. David R. Feinberg. McMaster University

A positive correlation is found between facial and vocal attractiveness in women, suggesting hormones influence this relationship. However, these attractiveness studies were based on women speaking. The current study's purpose is to determine if the positive correlation extends to when women are singing. There are three scenarios: audio, video, and video & audio of a woman singing. A sample of men will view a randomized order of the scenarios and rate each women on an attractiveness scale of 1–7, where 1 is least attractive and 7 is most attractive. We found that a strong positive correlation exists in all scenarios and that the correlations between the audio and video & audio conditions are significantly different. Consequently, these results suggest that another variable other than hormones influences men's perception of attractiveness in women and that facial cues influence the perception of attractiveness more than vocal cues.

(22) Can Children Plan For a Future That Differs From the Present?

Kathleen Cassidy, supervised by: Dr. Cristina Atance. University of Ottawa

Future thinking allows us to anticipate future needs and plan in advance to satisfy them. We expanded upon a paradigm used by Atance, Louw, and Clayton (2015) by having children plan for a future that differed from the present. Twenty-three 4-year-olds and 23 5-year-olds were taken into two rooms where they were given candy in one, but not the other. Children were told that a man named "John the Garbage Man" would be throwing out any candy found in the no-candy room that night. Participants were then asked which room they would like to put new candy in for their visit tomorrow. Neither the 4- nor 5-year-olds selected the correct room, the no-candy room, at a rate significantly higher than chance. This suggests the need to test older children to determine the age at which "John the Garbage Man" can reliably be taken into account when planning for the future.

(23) Role of Eye-movement in Retrieval of Information Pertaining to Navigation

Amir Zarie, supervised by: Dr. Shayna Rosenbaum. York University

Navigation is a crucial part of our lives. The hippocampus and the surrounding network of brain regions accomplish this feat. Further, it has been shown that eye-movements are functionally connected to brain regions involved in navigation. Studies have investigated the role of eye-movement in mental reconstruction of scenes and found that eye-movements facilitate memory retrieval. However, the role of eye-movement in retrieval if information required to mentally reconstruct a route for navigation has yet to be investigated. The current study borrows from experimental tasks used in previous literature namely, free, constraint, and stereotyped eye-movement conditions. Participants are asked to describe navigating between well known landmarks located at Downtown Toronto while simultaneously engaging in the aforementioned eye-movements. Their descriptions will be coded for analysis. It is expected to find a greater number of descriptions in the free, constraint, and stereotyped eye-movement conditions, respectively.

(24) Adverse Childhood Experiences (ACE)s and Criminal Behaviour in the Forensic Mental Health System

Dalia Ahmed, supervised by: Dr. Kaitlyn McLachlan. University of Guelph

Scientific literature demonstrates significant links between Adverse Childhood Experiences (ACEs) and a range of emotional, physical, and behavioural problems, including psychosis, hallucinations, and engaging in aggressive behaviours and illegal activities. However, little research has been done regarding ACEs in the forensic mental health system (FMHS). The present study explores the prevalence of ACEs and their link to criminal behaviour in the FMHS. The present study uses a secondary analysis design of previously collected archival data. Results show high prevalence of ACEs within the FMHS, and indicate that these high rates of ACEs are predictive of a lower age at first offense and a higher total number of charges in this population. Further exploration of the prevalence of ACEs and associated long-term outcomes in this population (e.g., self-harm, violence, victimization) is essential for improving trauma informed services, which in turn improve the safety of individuals admitted or working in mental health settings.

(25) Binge-Watching Behaviour as a Function of ADHD Traits

Hiba Nauman, supervised by: Dr. Tara McAuley. University of Waterloo

The Binge-Watching Behaviour Questionnaire (BWB-Q) was developed in order to capture trends in the frequency of online television streaming and associated feelings of loss of control. These trends were examined to define binge-watching as the act of watching three or more episodes of the same television show in the one sitting and experiencing loss of control emotions during the session. First, correlations between episodes watched per day and frequency of loss of control feelings were examined to derive a working definition for binge-watching. Next, ADHD traits such as hyperactivity, impulsivity, and inattention were used to predict binge-watching behaviour in 87 undergraduate students (Age: M = 21 years, SD = 2.6; 75% Female). Neither scores from the SWAN rating scale nor the UPPS Impulsivity scale predicted significant differences between those who binge-watch and those who do not.

(26) Neurobiological and Social Correlates of Suicidality in Schizophrenia

Sarah Ciantar, supervised by: Dr. Walter Heinrichs. York University

Suicide in schizophrenia is of clinical relevance due to its high occurrence and difficult predictability. This study assessed whether cortical thickness across the brain and regionally in terms of the default mode, salience, social brain, and central executive networks differentiates schizophrenia patients who have attempted suicide from non-attempters. Participants consisted of N= 74 patients (female = 29, male= 45) who were between the ages of 20-63

($M = 41.59$, $SD = 10.51$) diagnosed with schizophrenia or schizoaffective disorder. Results from this research can help to gain a deeper understanding of the biological mechanisms involved in suicidality in patients with schizophrenia as well as potential neural markers in network-associated regions.

(27) The Association between Sentence Repetition and Other Cognitive Abilities in an Undergraduate Population

Emily Bryan, supervised by: Dr. Joseph Casey. University of Windsor

The present study examines the association between sentence repetition (SR) performance and various cognitive abilities in a 17- to 25-year-old undergraduate population. Previous research with children is inconclusive as to what cognitive ability SR is truly measuring – a function of language ability or verbal working memory. This study investigates the inconsistency in the literature by studying these factors in adults. A sentence memory test and a four-subtest short-form of the Wechsler Adult Intelligence Scale – 4th edition are being used to measure SR and cognitive abilities, respectively. Demographic variables, such as socioeconomic status (SES) and bilingualism, are also explored to determine the contributions of these factors to language ability later in life. It is predicted that language skill as measured by the Vocabulary subtest of the WAIS-IV will most significantly predict SR scores in adults, and that SES, English as a primary language, and monolingualism will be correlated with SR performance.

(28) Speech and Language Impairments in Kindergarten: Prevalence and Association with Developmental Outcomes

Megan Yim, supervised by: Dr. Magdalena Janus, Dr. Caroline Reid-Westoby. McMaster University

Speech and language impairments (SLIs) have been associated with poorer developmental health. Although SLIs are one of the most common childhood impairments, data on prevalence rates are extremely limited. The purpose of this study was to examine the prevalence of SLIs in kindergarten children in Ontario, Manitoba, and British Columbia, and the associations between SLIs and children's developmental outcomes. This study examined data collected with the Early Development Instrument (EDI) – a population-based, teacher-completed questionnaire that measures developmental health in kindergarten children across 5 different domains. Data were analysed using SPSS, version 25. Overall SLI prevalence rates were 4.99%, 6.47%, and 6.32% for Ontario, Manitoba, and British Columbia, respectively. EDI scores were significantly lower for children with SLIs compared to children without SLIs in all 5 domains. The overall effect sizes ranged from .030 to .111. These results highlight the importance of making SLI services available and accessible to children.

(29) The Effect of Empathy on Response Latencies for Emotionally Salient Words

Renada Hana, supervised by: Dr. Lori Buchanan. University of Windsor

The average person interacts with others numerous times a day. Despite these social interactions, it is apparent that some individuals have a better ability to understand, react, and share another's emotions and frame of reference during these occurrences; this ability is referred to as empathy. This study aimed to discover if empathy levels predict response latencies for emotionally salient words, both positive and negative. Eligible participants first completed a lexical decision task (LDT) consisting of positive, negative, neutral words embedded in orthographically matched non-words. Next, two questionnaires measured their empathy: the interpersonal reactivity index (IRI) and the empathy quotient (EQ). The findings from this study and the correlation between the empathy measures and LDT response times for emotional versus non-emotional words will be discussed within the context of a potential lexical-level contrast of conversation dynamic between those with different empathy levels.

(30) Visual Attention to Sexual Stimuli and Sexual Arousal in Androphilic Women

Ashley Lam, supervised by: Dr. Meredith Chivers. Queen's University

Androphilic women (i.e., sexually attracted to men) generally exhibit gender-nonspecific genital response to sexual stimuli. Contrarily, previous research has yielded mixed results for the gender-specificity of androphilic women's subjective arousal. One model that may be used to explain the sexual arousal patterns of androphilic women is the Information Processing Model of sexual arousal, which posits that both conscious and unconscious processing of sexual stimuli are involved in the production of sexual arousal. The current study examines conscious processing of sexual stimuli and sexual arousal in androphilic women. In this study, androphilic women viewed sexually explicit photos while their sexual arousal and gaze patterns were recorded. Consistent with my prediction, androphilic women showed gender-nonspecific controlled visual attention. However, contrary to my hypothesis, androphilic women

showed gender-specific subjective and genital arousal. Moreover, the results generally did not support my prediction of a relationship between controlled visual attention and sexual arousal.

(31) The Association Between Emotions, Working Memory, And Executive Functioning In An Undergraduate Population

Derya Abdullah, supervised by: Dr. Joseph Casey. University of Windsor

Depression and anxiety are two of the most common and impairing mental health concerns in Canada. While neuropsychological dysfunction is often seen in major depressive disorder in adults, limited data has been published regarding cognitive dysfunction and subclinical anxiety and depressive symptoms among university students. The current study examines the association between emotions, working memory, and executive functioning in a 17- to 25-year-old undergraduate population. Students completed a battery of measures designed to assess their current depressive and anxious symptomology, day-to-day executive functioning, working memory, and intelligence. Additionally, current levels of distress, as well as psychiatric and educational history were recorded. Data collection is nearly completed. A hierarchical regression will be conducted to examine the association between mental health and cognitive variables. It is predicted that self-reported depressive and anxious symptoms will be associated with lower verbal and visual working memory scores and greater self-reported executive dysfunction.

Poster Session B (11:15am-12:15pm, Sears Atrium)

(1) Does Task Context Matter? An fMRI Study on Symbolic Number Comparison Tasks

Michael Slipenkyj, supervised by: Dr. Daniel Ansari. Western University

Previous research has suggested that symbolic numbers may be mapped onto the representations of their non-symbolic counterparts. Up to this point, the vast majority of neuroimaging research has focused on investigating direct differences between symbolic and non-symbolic numbers, without investigating how their representations may change based on the task context. Twenty-five adults completed symbolic number comparison, symbolic number to non-symbolic number comparison, and working memory tasks in an fMRI. Results shown that in symbolic number to symbolic number comparison tasks there is increased activity in the left insula which likely represents a preparatory motor response, and in the symbolic number to dot comparison task there is less deactivation of the left occipital gyri which likely represents anticipation of decoding the dot array. In summary, contrary to the theory that symbols are mapped onto non-symbols, symbolic numbers are processed in a context dependent manner.

(2) Visually impaired women discuss personal safety to inform the development of relevant self-defense programs

Alexis Fabricius, supervised by: Dr. Alexandra Rutherford. York University

The prevalence of violence against women is well-documented; however, our knowledge of disabled women's experiences with violence is limited, and we know even less about disability-specific fears of violence. This research seeks to address this gap and presents the results of an exploratory study examining the experiences of blind and visually impaired women living in Canada. Drawing on qualitative data from three focus groups involving twenty women (n=20), the current study examines the fears and anxieties visually impaired women have regarding violence, as well as the factors that shape their feelings of safety and vulnerability with the goal of creating relevant violence prevention and feminist women's self-defense (FWSD) programming. Using thematic analysis, I identify themes from discussions in the focus groups: a fear of stranger-perpetrated danger, belief that self-restrictive behaviours will increase safety, and the unacknowledged methods of protection visually impaired women employ.

(3) Childhood and Adulthood Attachment, Child Maltreatment, and Trauma Symptomatology in Adult Females

Chelsea Reaume, supervised by: Dr. Calvin Langton. University of Windsor

Recent studies have explored adulthood attachment as a moderator between child maltreatment and psychopathology, but whether childhood attachment acts as a moderator in a similar context remains to be seen. The present study seeks to replicate and expand upon prior research by examining both adulthood and childhood attachment as moderating variables for the association between adverse childhood experiences and trauma symptomatology in a sample of 163 undergraduate females. Significant positive correlations were found between abuse in childhood and trauma symptoms, abuse in childhood and insecure attachment in childhood and adulthood, and insecure attachment and trauma symptoms. Moderation analyses demonstrated no significant moderating effect

for adulthood attachment. However, analyses did find a significant moderating effect for anxious-ambivalent maternal childhood attachment, in that a stronger correlation between abuse severity and trauma was present for individuals with higher levels of maternal anxious attachment. Methodological considerations and implications of the findings are discussed.

(4) The examination of a novel semantic battery for Mild Cognitive Impairment

Avery Ohman, supervised by: Dr. Vanessa Taler; Dr. Jason Steffener. University of Ottawa

Objectives – Semantic memory one of the first cognitive domains to decline in mild cognitive impairment (MCI). This study aims to examine the psychometric properties of a novel tool developed to detect semantic impairments in MCI.

Methods – The five-task battery was administered to 51 healthy older adults (OA) and 24 MCI patients; data was scored by two independent scorers. Test-retest reliability ($n=17$) was assessed 3-5 months from original testing. Face validity was examined through five structured interviews with professionals with expertise in MCI and language.

Results – OA outperformed MCI patients ($p < .001$). Intraclass correlation was high, ranging from 0.961-1.00 for each task. There was not a significant change in participants' scores over time ($p=.791$). Interviews indicated the battery appropriately assesses semantic impairments.

Discussion - Findings suggest the battery is an appropriate and reliable assessment of semantic function. Next steps include modifying the battery to become more efficient for clinical use.

(5) Genetic Overlap Belief and Prevention Focus's Mutual Mediation Effect on Racial Bias

Zheng Wu, supervised by: Prof. Jason Plaks. University of Toronto

Laypeople see races as having biological boundaries. Essentialism underlies this belief and genes are widely believed as racial essence. Jason Plaks demonstrated that lower genetic overlap beliefs (GOB) caused higher implicit racial bias through more dichotomous racial categorization. Prevention focus (PF) is hypothesized as another mediator which amplifies racial bias. Conversely, PF emphasizes intergroup differences over similarity and might lead to lowered GOB. Thus, low GOB and PF are hypothesized to mutually amplify and mediate each other's effect on racial bias. Study 1 manipulated regulatory focus and found GOB significantly lowered in the PF condition, which is evidence for GOB mediating PF's effect on racial bias. Study 2 and 3 tested low GOB's effect on PF, using a questionnaire as the dependent measure in Study 2 and a subtler behavioral measure in Study 3. Both studies did not yield the hypothesized effect, indicating that PF is not a direct mediator.

(6) A rat's sweet tooth for unpredictable 4% sucrose solution

Monique Sousa, supervised by: Dr. Roelof Eikelboom. Wilfrid Laurier University

With 0- to 3-day intervals between 24 hour of access to 4% sucrose solution in rats consumption more than doubles (Eikelboom & Hewitt 2016). This experiment looked at consumption of sucrose given every day, 3rd day, 5th day, or with random intervening intervals (2 schedules). Rats were on their respective schedule for 30 days and then switched to continuous access for 8 days. The continuous access rats drank (~160 g) considerably less than all the intermittent access rats (~260 g) but there were no differences among the 4 intermittent groups. This lack of difference may be due to a ceiling on consumption. In the two random interval groups consumption was stable regardless of the length of the preceding interval. When switched to continuous access all intermittent groups decreased their consumption towards that of the continuous rats. This sheds light on limits to addictive feeding behaviour due to intermittency of access.

(7) Bumblebees learn to avoid a complex stimulus in a negative patterning task

Gustave Pinault-Masson, supervised by: Dr. Catherine Plowright. University of Ottawa

Bumblebees learn some aspects of foraging from conspecifics on flowers, but the mechanisms are not well understood. The negative patterning task, in which two stimuli are reinforced (+) when presented alone, but non-reinforced (-) when presented together as a compound, was used to test for "configural processing" of occupied flowers. Visual patterns were presented in the corridors of a radial maze: artificial flowers (A), dead workers (B) and occupied flowers (AB). In the control group (no training), AB choice proportions didn't differ from chance. In the experimental group, bees were group-trained on two discriminations: A+ vs AB? and B+ vs AB?. Trained workers were tested individually with the three patterns, none of which offered reward. A significant avoidance of AB was obtained. The whole was perceived as different from the sum of its parts, which challenges the anthropocentric view that an encounter with an occupied flower is a social experience.

(8) Performance Evaluations of Employees With Physical Disabilities

Hufriya Kateli, supervised by: Dr. Catherine E. Connolly. McMaster University

Employees with disabilities require constructive feedback to advance in their careers. The aim of this study is to assess individuals' biases against employees with physical disabilities when evaluating their performance. A 2x2 factorial design was used, with the independent variables being physical disability (disabled versus non-disabled) and employee performance (high versus low performance). The dependent variable was the quality of the participants' feedback to the employee. Undergraduate students at McMaster University viewed a video of one of four scenarios where a confederate is in a wheelchair or in an office chair, and completing a simulated job task in either an impressive or unsatisfactory manner. The participants provided verbal feedback via video to the hypothetical employee and also answered a questionnaire. We found no significant differences between the feedback given to the wheelchair and the office chair condition in both the questionnaire responses and the verbal feedback.

(9) Identity Status, Achievement Goal Orientation, and Academic Engagement

Brina Puspoky, supervised by: Dr. Christopher Roney. Western University

Research has found that a person's identity status and achievement goals are correlated (identity achieved with mastery goals, and foreclosure with performance goals; Chorba, Was, & Isaacson, 2012; Was et al., 2009). The present study examined these associations and how they, in turn, predict academic engagement and self-efficacy. Autonomy was included as a possible mediator. 75 participants (76.9% females, 23.1% males) ages 18 to 39 ($M=19.79$, $SD=4.01$), were recruited from King's University College Psychology classes. Online, participants completed a demographic questionnaire, followed by seven questionnaires measuring these variables. Results showed that achieved academic identity status was positively related to academic self-efficacy, and that foreclosed academic identity status was negatively related to academic engagement, intrinsic motivation, and mastery goal orientation. This suggests that identity issues should be considered when seeking to understand young adult's academic issues, and that working through identity issues before making a commitment is beneficial.

(10) Think Before You Act: A Perspective-Taking Intervention to Reduce Witness Reactions to Workplace Incivility

Christina Gilbert, supervised by: Dr. Peter Hausdorf. University of Guelph

Workplace incivility is on the rise and has significant consequences for witnesses. Research suggests witnessing incivility produces negative emotions and attitudes leading to retributive behaviour. The current study assesses the effectiveness of an online perspective-taking intervention to promote less negative reactions by encouraging witnesses to make external attributions about the instigator's uncivil behaviour. A sample of 78 female undergraduate students watched a video of someone engaging in uncivil behaviour then completed a perspective-taking exercise (experimental condition) or a word search (control condition). We measured participant's reactions toward the instigator in terms of empathy, anger, negative attitudes, retributive behaviour, and forgiveness. PLS-SEM will be used to examine the relationships among variables in two models that propose that perspective-take will be related to more empathy, less anger, less negative-attitudes, less retributive behaviour, and more forgiveness towards the instigator. In sum, perspective-taking could improve witness reactions to incivility and reduce retributive behaviours.

(11) Adapting to Complexity: The Impact of Creativity, Decisiveness and Chance Perceptiveness on Career Engagement

Alicia Melatti, supervised by: Dr. Bernadette Campbell. Carleton University

Uncertainty in the job market has changed the way individuals seek careers after university. Current career theories emphasize chance as central to career seeking behaviours. As a result, individuals need to cope with complex, non-linear, and dynamic career experiences. In this context, individuals need to be more adaptable to capitalize on chance opportunities that evolve in their lives. To explore the correlates of adaptability skills (creativity, decisiveness, and chance perceptiveness) to career engagement, 317 upper year undergraduates and recent university graduates were surveyed. Hierarchical linear regression analyses revealed that adaptability skills explained significant variance in career engagement. Specifically, higher levels of creativity, decisiveness, and chance perceptiveness were associated with career engagement. These findings suggest how specific skills sets that emphasize adaptability might explain career engagement as a function of career decision making. Further discussions about the implications for practice in the area of career development theory are addressed.

(12) Parenting Stress and Soothing Behaviours: Exploring Sensitivity as a Mediator

Carla Rumeo, supervised by: Dr. Rebecca Pillai Riddell. York University

Stress associated with one's parenting role has been linked to a variety of negative parenting behaviours. In the current study, it was hypothesized that participants who reported higher levels of parenting stress would use fewer effective and more disadvantageous soothing strategies after their child's immunization. It was also hypothesized that parental sensitivity would mediate these associations between parenting stress and soothing behaviours. Caregiver-infant dyads from the Opportunities to Understand Childhood Hurt (OUCH) cohort were videotaped during infants' 2, 4, 6, 12 month, and preschool immunization appointments. Parental sensitivity and soothing behaviours were coded from videotapes of the preschool vaccination. Parenting stress was measured during a psychoeducational assessment ($n=172$) within 8 weeks after the vaccination appointment. Parenting stress was not found to be related to soothing behaviors and none of the mediation models yielded significant findings. Future directions and limitations which may be responsible for the null results, will be discussed.

(13) Sexual Selection Through Machiavellian Intelligence: Social Species Signal Traits may not be the Key Determent of Reproductive Success.

Jacob Hann, supervised by: Dr. David J. White & Mr. Hayden Davies. Wilfrid Laurier University

Birdsong has historically been thought to serve as an honest indicator of male genetic quality. Here we examine whether, in brown-headed cowbirds (*Molothrus ater*) song serves this function, or alternatively, whether reproductive success is better explained by the effective use of a set of social skills (the Machiavellian intelligence hypothesis). Results indicated that song attractiveness, as measured by females' preferences in sound attenuation chambers showed no significant relationship to reproductive success. Social measures of the males (directed songs, countersinging, pursuits, fights) taken in the breeding season explained 75% of the variance in copulation success and 58% of the variance in offspring production. These findings demonstrate males require more than just an attractive song to breed successfully; they require a suite of skills that allow them to track others, engage in courtship and in competition. This suggests that evolution favours the development of a repertoire of Machiavellian skills to breed successfully.

(14) Impact of a Brief Compassion-Cultivation Meditation on Eating Disorder Risk Factors
Katarina Huellemann, supervised by: Dr. Rachel Calogero. Western University

Disordered eating affects many college aged women. Several psychological risk factors for disordered eating have been identified in this population including self-objectification, body shame, appearance-based social comparisons, and negative affect, but limited research has investigated a solution to them. One construct that may challenge the judgmental cognitions underlying these risk factors is self-compassion. Consequently, this study tested whether a brief compassion-cultivation meditation (CCM) would reduce fear of self-compassion and the risk factors named above. Sixty-nine university women (a) completed measures of trait mindfulness and mood, (b) were randomly assigned to either 15 minutes of CCM, relaxing music, or sitting quietly, and (c) completed measures of the dependent variables. Trait mindfulness was significantly negatively correlated with most of the risk factors and fear of self-compassion. Controlling for trait mindfulness and affect, we observed no significant effects of condition. Discussion considers methodological issues related to delivering mediation and future directions for research.

(15) Religiosity, Religious Coping and Well-being Among University Students
Eden Champagne, supervised by: Dr. Benjamin Giguere. University of Guelph

The use of religious coping, specifically, primary appraisal, secondary appraisal and secondary control was examined using a mediation analysis, among university students who self-identified as Christian, Jewish or Muslim. Specifically, it was investigated whether religious coping explains the positive relationship between religiosity and well-being outcomes (self-esteem, life satisfaction, eudamonic well-being) and inverse relationship to ill-being outcomes (stress, depression, anxiety). Pearson zero-order correlations, and 95% bootstrapped confidence intervals indicate that religiosity significantly predicts religious coping. Religiosity was significantly correlated with higher self-esteem and eudamonic well-being. Based on regression analyses, however, religious coping does not appear to explain the relationship between religiosity and well-being.

(16) Does Previous Experience Harm Learning?

Chuyun Shen, supervised by: Dr. Amy Finn. University of Toronto

Statistical learning is considered an automatic mechanism that allows organisms to extract statistical regularities after short exposure. To test the automaticity of statistical learning, we investigated previous experience's influence on statistical learning by presenting sequential structural information in adults and children. All participants were exposed to a stream of repetitive alien picture pairs and later tested on their implicit and explicit knowledge of alien pairings. When presented with only one structure of pairings, all participants demonstrated learning. However, when the exposure contained two successive structures with the aliens re-paired at midstream with no cue, both adults and children showed only marginal learning of structure 1 and no learning of structure 2. These results suggest that previous experience harms learning and statistical learning may not always be automatic. Although adults show a more explicit representation of their knowledge, potential relevance for age-related language learning differences is yet to be found.

(17) The Effects of Body Dissatisfaction on Media Selection in Young Women

Hara Wu, supervised by: Dr. Jennifer S. Mills. York University

The effects of body dissatisfaction on media selection remain largely unexplored in the current literature. As a replication and extension of the previous two studies from the same lab, the current study examined whether increased body dissatisfaction causes young women to self-select thin-idealized media. A total of 118 undergraduate females ($M = 19.13$, $SD = 1.56$) enrolled in Introductory to Psychology participated. Participants underwent an experimental induction procedure, followed by selecting and evaluating various media types, and completed several questionnaires. Contrary to expectation, no significant main effects of experimental condition on media selection were found across media types, but the frequency distribution of female magazine selection provided partial support for the tendency to select thin-idealized media. Moreover, participants in both negative induction conditions experienced body dissatisfaction and preferred the thin magazine model. Results from the current study partially supported the theory of thinspiration and offered evidence that certain body dissatisfied women gravitated toward the thin ideal.

(18) The Role of the Medial Prefrontal Cortex in Approach Avoidance Conflict Processing

Nardin Kirolos, supervised by: Dr. Rutsuko Ito. University of Toronto

The study examines the role of the prelimbic (PL) and infralimbic (IL) regions of the medial prefrontal cortex in approach avoidance conflict processing. Rats were trained in an operant box to associate visual and auditory cues with appetitive, aversive, and neutral outcomes. PL and IL region inactivations were carried out, after which animals were exposed to appetitive, aversive and conflict cues, in which both appetitive and aversive stimuli were presented simultaneously, under both extinction and outcomes present conditions. Inactivation of the PL and IL cortices led to diminished responding to appetitive cues and increased responding to aversive and conflict cues. These findings suggest that PL and IL cue processing results in the same behavioural output and that their effect on conflict processing may be determined by their individual processing of appetitive and aversive cues. In addition, both regions seem to emphasize aversive cues and thus promote avoidance behaviours.

(19) BUILD(ing) a successful transition to University

Chantal Vien, supervised by: Dr. Kendall Soucie. University of Windsor

The Bridge to University for Individuals with Learning Disabilities (B.U.I.L.D.) program at the University of Windsor offers youth with documented learning disabilities skills and resources to help ease the transition to post-secondary. In this exploratory study, surveys were distributed to B.U.I.L.D. 2017 participants' ($n=12$) on characteristics such as sense of community, self-efficacy, and individual's group, self, and disability identity prior to the program and one semester following. This mixed method study evaluates the impact of the B.U.I.L.D. program on the identity status and psychosocial adjustment of students to expand this body of research on both identity salience and learner empowerment. The preliminary findings suggest that the B.U.I.L.D. program acts as a promoter for the development of new constructs that are more encompassing of the person's identity which reflects students either committing to an identity or exploring it.

(20) The Influence of FASD on Legal Decisions about Youth Defendants

Casey Upfold, supervised by: Dr. Kaitlyn McLachlan. University of Guelph

Recently, there has been a growth of legal and clinical attention given to the overrepresentation of people with fetal alcohol spectrum disorder (FASD) and how they are treated within the criminal justice system. There is limited research on why individuals with FASD are seen at increased rates in criminal justice settings, and how information about an FASD diagnosis impacts sentencing decisions. The current study assessed how information about an FASD diagnosis influences sentencing decisions and perceptions of a justice-involved youth using a between-subjects

experimental design. Participants included 79 undergraduate students from the University of Guelph, ages 18-24 ($M=18.75$). Participants read a fictional legal case online of a young offender who committed a violent crime, where in clinical diagnosis varied (FASD, ADHD, or control). No significant results were found in the expected direction for the type and length of sentence, or for participants ratings of guilt and amenability to treatment.

(21) The Effects of Employee Disabilities on Managerial Nonverbal Behaviours

Samson Yeung, supervised by: Dr. Catherine E. Connelly. McMaster University

Although people may try to suppress or eradicate their biases, they may still exist in the form of anxious nonverbal behaviours; as a result, biases may still exist in the workplace. This study assesses the nonverbal behaviours of managers when they evaluate an employee and provide feedback to them. The study has a 2x2 design with employee disability (office chair vs. wheelchair) and employee performance (high vs. low competency) differing between groups. Participants provided video feedback to a fictitious employee after watching a video of the employee providing IT customer service over the phone. Preliminary results suggest that managers exhibit anxious nonverbal behaviours in the presence of a disability. However, a larger sample size is needed to increase confidence in the findings.

(22) The Impact of Parental Language on Child Emotion Regulation

Anastasia Taskov, supervised by: Dr. Kristel Thomassin. University of Guelph

Emotion research has explored the concept of child emotion regulation throughout various different developmental perspectives. Past research indicates that parental language can have an impact on child emotion development through the positive and negative emotion words parents use when speaking directly to their children about emotion. This study explores parent gender differences when talking about emotion and uses structural equation modelling to investigate whether positive and negative emotion words have an impact on child emotion regulation through supportive and/or unsupportive parenting styles. A sample of 102 parents participated in focus groups, followed by the completion of a survey. Non-significant results were reported in terms of whether mothers use more emotion words than fathers in the focus groups. Further analysis found that the relation between positive and negative emotion words and child emotion regulation is not significantly mediated by supportive and/or unsupportive parenting styles. Implications and limitations are discussed.

(23) The Impacts of Local Prejudice on the Mental Health of Sexual Minorities

Eki Okungbowa, supervised by: Dr. Eric Hehman. York University

Geographic location plays a major role in mapping out psychological characteristics such as implicit and explicit bias. Experiences of discrimination often result in increased stress levels which furthermore contribute to the destabilization of mental health, as they produce stress-induced illnesses. The mental health implications of discrimination based on sexual orientation has been an under-researched domain in psychology. We examined how state-level variation in anti-gay bias is associated with reduced mental health of sexual minorities, in the form of number of calls to a help hotline for those considering suicide. We used Project Implicit to investigate local anti-gay bias in the U.S., and mental health was measured by the number of LGBTQ-tagged texts to Crisis Text Line (CTL). The limited year range, and the lack of a heterosexual-only baseline in our model, may explain insignificance of predictors.

(24) Does the testing effect remain under stress?

Omer Baig, supervised by: Dr. Joseph Kim. McMaster University

The testing effect demonstrates that long-term memory is better encoded when the learning period is devoted to retrieving rather than restudying the information. Recent research regarding this effect has found that encoding information through restudying leaves subsequent retrieval vulnerable to stress, whereas studying information by practicing retrieval protects later retrieval from stress. The current study seeks to replicate these findings using ecologically valid materials while investigating whether the inoculation against stress obtained by practicing retrieval remains when answering more difficult multiple-choice questions. This experiment employed a 2x2 between-participant design. On the first day, participants learned a prose passage by either restudying the passage (SSSS condition) or by practicing retrieval following an initial study session (SRRR condition). They returned two days later where they completed either the Trier Social Stress Test or a control analogue. Afterwards, they recalled the prose passage and completed a set of multiple-choice questions on the passage.

(25) Non-Suicidal Self-Injury in Youtube: Applicability of the Four-Function Model of Self-Injury

Morgan Steele, supervised by: Dr. Jenelle Power & Dr. Ralph Serin. Carleton University

This research examined how non-suicidal self-injury (NSSI) is discussed in social media by analyzing the 100 most viewed YouTube videos relating to NSSI. Variables examined included demographics, mental health, history of suicidal thoughts or actions, and history of trauma, depictions of NSSI, how uploaders viewed their NSSI, information about YouTube accounts, and video characteristics. Functions of NSSI for each uploader were categorized, based on the Four-Function Model of Self-Injury (FFM). Results indicated that YouTube accounts of NSSI were inconsistent with demographic information seen in previous research on NSSI; however, categorizations based on the FFM were consistent with the model. Given the elevated rates of suicidality and bullying noted in this sample, there may be implications for health care professionals, as it may be valuable to discuss online histories with patients engaging in NSSI. A lack of discrepancies between age-restricted and non-restricted videos may have implications for YouTube's video restriction policies.

(26) Longitudinal Measurement Invariance of a Psychological Cost Scale

Brandon Morais, supervised by: Dr. David Flora. York University

Educational outcomes are influenced by student motivation. This link is established by expectancy-value theory. An under-studied component of expectancy-value theory is cost. Flake, Ferland, and Flora (2017) addressed this gap in literature by analyzing the trajectories of psychological cost among university students throughout a gatekeeper course. However, their analyses and conclusions rely on the assumption of longitudinal measurement invariance across repeated measures. This current thesis used confirmatory factor analysis to test this assumption. The results of this study establish weak invariance and mixed evidence for strong invariance of the psychological cost scale. This study also demonstrates the validity of the cost scale in a longitudinal framework. However, one must adjust for the fact that strong invariance may not be supported. Future studies should evaluate measurement invariance by ethnicity and gender for the psychological cost scale.

(27) The impact of alcohol binge drinking and exercise on cognition, mood and memory

Hajer Nakua, supervised by: Dr. Sue Becker. McMaster University

A quarter of adolescents report experiences of heavy episodic drinking. Human and rodent studies have found that binge drinking negatively impairs hippocampal neurogenesis, cognitive function and mood. Furthermore, youth who engage in physical activity are more likely to have improved memory and cognition when compared to those who do not. Rodent studies have found that engaging in physical exercise can mitigate some of the consequences of binge drinking behavior. Therefore, it is important to determine whether exercise can mitigate the consequences of binge drinking. This study examines the impact of binge drinking and exercise on mood, memory and executive functions. We administered five self-report questionnaires and a cognitive battery consisting of six tasks. We found that increased alcohol consumption was associated with poorer cognitive performance and mood. Additionally, binge drinkers who engage in high levels of physical activity had better performance than binge drinkers who engage in low-moderate physical activity.

(28) La Perception des Fleurs Occupées à Travers des Yeux d'un Bourdon

Zoé Trudel, supervised by: Dr. Catherine Plowright. University of Ottawa

Cette étude cherche à déterminer la perception chez les bourdons de fleurs occupées. Une fleur occupée pourrait être perçue comme différente de la somme de ses éléments ou non. Nous avons examiné les choix de trois patrons sans renforçateurs: une fleur artificielle (A), des modèles d'insectes (B) et la combinaison des deux (AB). Des bourdons entraînés au préalable à une tâche de discrimination A+/B+/AB? ont été comparés à un groupe témoin non entraîné, lequel a choisi le patron AB au niveau du hasard. Dans trois tests différents (AB vs A vs B; AB vs A; AB vs B) un évitement significatif du stimulus complexe AB a été obtenu, ce qui aurait été impossible avec un traitement élémental. Donc, les autres individus rencontrés sur des fleurs ne font pas nécessairement partie du monde social des bourdons.

(29) Post-Baby body image: Self-objectification, self-compassion and wellbeing

Brigette Piazza, supervised by: Dr. Becky Choma. Ryerson University

Having a baby is accompanied by many changes in a woman's body. The present research adopted an objectification theory perspective (Fredrickson & Roberts, 1997) and considered the role of self-compassion (Neff, 2003) as a

potential buffer in the association between self-objectification and negative wellbeing. Women who had a baby in the last 3 years ($n=152$) were recruited using a snowball method via Facebook. Participants completed measures of self-objectification, self-compassion, depression, disordered eating, and sexual dysfunction. Consistent with hypotheses, women higher (vs. lower) in self-objectification or lower (vs. higher) in self-compassion reported more depressive symptoms and disordered eating attitudes. Sexual dysfunction did not relate to self-objectification or self-compassion. Self-compassion moderated the relation between self-objectification and depression only: the positive relation between self-objectification and depression was significant among those higher in self-compassion, but not significant among those lower in self-compassion. Implications are discussed.

(30) Cross-language Differences in Working Memory Performance

Ilona Tsvetkov-Kristen, supervised by: Janice Johnson. York University

The Direction Following Task (DFT) measures attentional capacity in the expressive language domain. Morra et al. (2013) found that Italian participants scored higher on DFT than English-speaking participants have; and reasoned that Italian word order might create a recency effect, facilitating DFT performance. In the current study 65 participants (17-38 years) were randomly assigned to receive standard English DFT or a DFT version that mirrored Italian word order. Results indicated that 'Italian' DFT sample's performance was significantly higher than standard DFT. The group difference occurred only at the more difficult levels of the DFT. Examination of error patterns showed that errors occurring specifically in the last word of the direction were fewer in the 'Italian' condition, providing evidence for the hypothesis of a recency effect. This study identifies important linguistic implications in design and outcomes on WM measures in the verbal domain. Practical and theoretical implications are discussed.

(31) Clinical Predictors of Response to ECT in Patients with Depression

Vagisha Pruthi, supervised by: Dr. Heather McNeely. McMaster University

Previous research established some baseline characteristics (presence of psychotic features, age and severity of depression) in patients suffering from depression as predictors of response to Electroconvulsive Therapy (ECT). Our research analyzed additional baseline clinical characteristics that differentiate responders from non-responders to ECT. Responders were classified as patients with 50% or greater reduction in Beck Depression Inventory-II (BDI-II) score. Data from fifty-three patients receiving ECT was analyzed. Results revealed that non-responders were not significantly more depressed than responders but had significantly more severe anxiety and higher suicide risk. The efficacy of ECT in this sample may have been affected by severity of anxiety and suicide risk. Therefore, comorbid anxiety and suicide risk should be accounted for when determining a patient's suitability for ECT for treating depression. Given the naturalistic design of this study, further research is required to establish anxiety and suicide risk as robust predictors of response to ECT.

Poster Session C (1:30-2:30pm, Sears Atrium)

(1) The Role of Friends in Cyber Dating Abuse

Frances Schell, supervised by: Dr. Wendy Ellis. Western University

The peer context has been examined in relation to dating violence research with consistent suggestions that information learned among peers can easily extend to a dating context. Friends have been found to influence offline dating violence and cyberbullying. To date, few studies have explored the role of friends in dating violence within an online context. This study sought to examine how friends influence cyber dating abuse (CDA) perpetration, and how individual variables influence it. Participants included 101 university undergraduate students, 18 to 25 years ($M = 19.43$, $SD = 1.77$), with 83 females and 18 males. Data was collected through online self-report questionnaires that measured friendship quality, CDA, friend reinforcement of CDA, cyberbullying attitudes and perceived friend attitudes, and normative CDA beliefs. Friend presence, belief in CDA norms, and individual cyberbullying-tolerant attitudes were shown to predict CDA. Results drew attention to the importance of including peers in further CDA research.

(2) The Relationship between Task Difficulty, Perceived Availability of Cognitive Resources, and Fatigue Ratings

Samiha Rob, supervised by: Dr. Colleen Carney. Ryerson University

Fatigue is a universal experience, but when persistent can become debilitating. Several models exist attempting to explain fatigue, including Chaudhuri's neurobiological model (2004). The current study tested one aspect of

Chaudhuri's model; that is, whether fatigue ratings increase when a task is perceived as difficult. In this online study, 100 participants were randomly assigned to receive an instruction that the upcoming task was "hard" or "easy". After the instruction, they rated their fatigue and their perceived mental energy available and re-rated after the task. The regression analysis showed that fatigue increased after the task, however, perceived task difficulty did not predict post-instruction or post-task fatigue ratings. A t-test showed participants did not differ in their perception of whether the task was difficult or not. Because participants did not differ in whether they expected the task to be difficult (even with an instruction about difficulty), this part of Chaudhuri's model remains to be tested.

(3) Can manipulation of Locus of Control modulate the motivated numeracy effect in political judgment?

Ziye Wang, supervised by: Dr. Jonathan Fugelsang & Dr. Jennifer Stoltz. University of Waterloo

Public disagreement on policy-relevant science is rampant, often in spite of straightforward data. An explanation posited for this is the Identity-Protective Cognition Thesis (ICT), which states that people are more motivated to protect their cultural in-group membership than they are to engage the reasoning ability required to interpret scientific data. This selective engagement of reasoning when it suits the individual is called motivated numeracy. In order to modulate this effect, we experimentally manipulated subjects' Locus of Control (LOC) before presenting them with a difficult reasoning task involving drawing inferences from policy-relevant data. We predict that when oriented toward an internal LOC, subjects will become motivated to selectively interpret the correct answer when it is conservative-friendly. When externally oriented, subjects should be more likely to uncover the correct answer when it supports a liberal perspective. These results indicate that motivated numeracy can be modulated through intervention at the level of personality.

(4) Perspective Taking as an Intervention Method for Witnessing Workplace Incivility

Ashley Cole, supervised by: Dr. Peter Hausdorf. University of Guelph

Incivility is frequent in workplaces, and witnessing incivility can generate anger, negative attitudes, and retaliation. Perspective taking is an intervention method that has been shown to not only decrease these negative reactions, but increase empathy, positive attitudes, and forgiveness towards the instigator. Perspective taking has not been previously applied to the context of workplace incivility. The current study recruited 41 female undergraduates to participate in a perspective taking intervention or a control condition after witnessing incivility in a laboratory study. PLS-SEM was used to examine the relationships between the intervention condition and experienced anger, empathy, negative attitudes, retaliation, and forgiveness. Our results suggest a direct effect of anger on negative attitudes, and negative attitudes on retaliation and forgiveness. Non significant effects were found for our mediation hypotheses and the path coefficients between perspective taking and empathy. These results have possible implications for the design of future incivility interventions.

(5) The Impact of the Hedonic Quality of Physical Activity on Food Consumption Behaviour

Bronwyn Laforet, supervised by: Dr. Michelle Dionne. Ryerson University

Past research shows that when individuals engage in acute exercise, their subsequent food consumption tends to increase. Further, consumption can change depending on the perception of the effort that individual believes they have exerted. The present study is largely a replication by Werle, Wansink & Payne (2011) who investigated these effects, having participants imagine physical activity either perceived as 'effortful' or 'pleasurable', followed by measurement of snack-serving behaviour. Our study of 113 undergraduate university students addressed some limitations of the original study and also investigated the effects of two moderators of this effect, both exercise motivation and dietary restraint. Preliminary analysis showed that there was no significant effect of the way exercise was perceived (effortful vs. pleasurable) nor a significant moderation of exercise motivation. Results will be discussed in terms of mechanisms of exercise and weight control and future data analysis will consider the moderating effect of dietary restraint.

(6) Comparing Elements of Successful Aging Between Master Athletes Versus Chess Players

Mehrnaz Adli, supervised by: Dr. Joseph Baker. York University

In 1987, Rowe and Kahn introduced the concept of successful aging, emphasizing three key elements: absence of disease and disability, maintenance of cognitive and physical function and engagement with life. This project is part of

a larger exploration of the link between the body and mind while examining the concept of health as a multidimensional continuum. The current analysis focused on data related to injury and chronic disease. A sample of 68 master athletes and 50 chess players was compared against a matched sample of moderately active and inactive older adults obtained through the Canadian Community Health Survey (CCHS). Overall master athletes and chess players accounted for the majority of all injury types while the moderately active and inactive groups reported a greater proportion of chronic diseases. These results suggest competitive activity of any type is beneficial for reducing disease burden but increases risk of injury.

(7) Stage-Specific Mechanisms of the Desirable Difficulty Effect

Kara Hannah, supervised by: Dr. Scott Watter. McMaster University

When greater difficulty in an initial task leads to improved performance on a later task, it is said to produce a desirable difficulty effect. In three experiments, we examined memory recognition performance after a gender categorization task. Participants were presented names, along with incongruent or congruent primes associated with either the semantic or response stage of processing. Then, participants were tested on their memory for these names. Pupillometry was used to determine whether pupil dilation correlated with cognitive effort. Using a chinrest seemed to interfere with natural processing, resulting in nonsignificant results for pupil dilation and memory performance. After removing the chinrest, greater pupil dilation was evident for incongruent trials at both semantic and response stages, however only memory was improved for semantically incongruent trials. This suggests better memory is not due to merely greater cognitive effort, but rather greater attentional focus on the right kind of information.

(8) Familiar Voice Pitch Cues on Speech Intelligibility in Multi-talking Backgrounds

Vivian Huynh, supervised by: Dr. Ingrid Johnsruude; Ms. Ysabel Domingo. Western University

This study is a replication of previous studies examining the familiar voice on speech intelligibility benefit. Our study aims to further investigate how we benefit from listening to a familiar voice by targeting the influence of specific pitch cues. We used 15 pairs who are naturally familiar with each other's voice. We recorded their voices reading 480 structured sentences. These sentence stimuli created from a closed-set system were digitally modified to degrade pitch contour and fundamental frequency (f0) cues or both. We conclude that people do not critically rely on pitch contour or f0 for familiar voice recognition or speech intelligibility, suggested by the persistent of recognition and intelligibility effects in the absence of those cues. However, f0 may contribute to recognition shown by decreased recognition sensitivity when we increased f0. Our findings can be applied to improve speech intelligibility in hearing impaired.

(9) Feedback-Based Learning Under Distributed and Massed Learning Schedules for Novel Complex Tools

Anastasia Mekhael, supervised by: Dr. Norman Park. York University

Memory for tool attributes is represented in the declarative system, while motor skills learning takes place in the procedural system. The Spacing Effect holds that studying material over staggered intervals leads to better retention than studying in one session; this has been found in memory for tool attributes. Additionally, the Testing Effect states that retrieving information from memory produces greater retention than restudying. Providing feedback while learning enhances declarative and procedural memory. In the current study undergraduates were trained over 2 sessions, separated by a 10-minute delay, to use 12 novel complex tools. Training schedule and access to feedback were orthogonally manipulated. Results from 32 participants showed that tool use improved in the presence and absence of feedback, suggesting that procedural memory improves without corrective feedback if initial motor skills learning has occurred. Superior recall for tool attributes was reported under spaced learning schedules, supporting findings that spacing enhances declarative memory.

(10) Exploring the effects of self-distancing on affective forecasts

Shannon Vokes, supervised by: Dr. Roger Buehler. Wilfrid Laurier University

The ability to predict how one will feel in the future, otherwise known as affective forecasting, is hindered by many biases such as the impact bias, a tendency to overestimate the intensity and duration of future emotions. The present study explored whether predictions of how one will feel given a negative vs. a neutral event differs depending on whether one takes a self-distanced vs. a self-immersed perspective, and whether levels of social anxiety may moderate this effect. Consistent with the hypotheses, taking on a self-distanced perspective when predicting future

feelings decreased predicted negative affect for a negative event. Self-distancing decreased predicted negative affect for people low in social anxiety, but for those high in social anxiety, self-distancing had a reduced effect. The results suggest that adopting a self-distanced perspective when predicting future feelings could be a useful strategy for decreasing predicted negative affect in those low in social anxiety.

(11) Examining the Effects of Previous Cognitive Behavioural Therapy on Acceptance and Commitment Therapy

Arianna Bullett, supervised by: Lana Di Fazio & David Sider. St. Lawrence College

Cognitive behavioural therapy (CBT) and acceptance and commitment therapy (ACT) are two empirically based approaches for treating anxiety and depression. It is unknown if CBT and ACT would be mutually enhanced when delivered. This study investigated the impact of previous CBT on ACT. Participants were organized into two groups: individuals who had attended a CBT-based program (PCBT) and individuals who had not (NCBT). Both groups attended two ACT sessions a week for six weeks. It was hypothesized that the PCBT group would have greater decreases in depression and anxiety symptoms and greater increases in mindfulness and psychological flexibility than the NCBT group. Overall, the hypothesis was not supported. The NCBT group obtained greater decreases in depression and anxiety symptoms and greater increases in mindfulness and psychological flexibility. These results suggested that previous CBT reduces the benefits of ACT. Future studies should further examine the relationship between CBT and ACT.

(12) Seeing people care: Seeking help from my residence don for mental health concerns

Samantha Memedoska, supervised by: Dr. Joel Goldberg. York University

Despite the prevalence of student mental health concerns, there are surprisingly few empirical studies of seeking help from university residence supports. We examined these issues among students with and without mental health concerns who live in residence. A sample of 55 students (29 men, 26 women, mean age = 19.3 years) were asked to complete questionnaires including a new measure that examines willingness to seek help from a residence don. Analyses revealed that students with self-identified mental health concerns showed significantly lower self-esteem ($p < .003$), less self-compassion ($p < .001$), feel unlistened to ($p < .008$) and that they do not matter ($p < .01$). However, there were no significant differences on measures of self-stigma of seeking help (SSOSH) or seeking residence support, which were significantly inter-correlated ($r = .41$, $p < .002$). Further research is needed in developing the psychometrics of the residence help questionnaire.

(13) Investigating Hidden Hearing Loss Through Amplitude Modulation Encoding in Background Noise

Natalie Tran, supervised by: Dr. Larry Roberts & Dr. Ian Bruce. McMaster University

Hidden hearing loss has been proposed to underlie impaired temporal coding in some individuals with normal audiograms. Background noise has been shown to saturate high-spontaneous rate (SR) auditory nerve fibers (ANFs) important for sound encoding in noise, while sparing low-SR ANFs that are important for sound encoding in noisy environments. Following our earlier study (Paul et al., 2017), we applied this principle to study amplitude modulation discrimination (AMD) to 19Hz-modulated 5kHz tones and envelope following responses (EFRs) evoked by 88Hz-modulated 5kHz tones (EFRs recorded by electroencephalography). We manipulated the bandwidth of background noise to evaluate potential contributions of off-frequency high-SR ANFs to temporal coding. Participants completed discrimination and EFR tasks in 1/3-octave narrowband noise (NBN), 2-octave NBN, and no noise conditions. Effects of NBN on AMD and EFR will be analyzed, as will correlations between AMD, EFR, and noise exposure history.

(14) The Healthy Aging of the Human HPC Affects Temporal Durations in Events Sequences

Supreet Aashat, supervised by: Dr. Andy Lee. University of Toronto

Hippocampal time cells have been suggested to process temporal duration information, which helps to disambiguate between successive events, and, bridge discontinuous events. Past research has only reported this function from neurologically younger adults, however the impact of ageing, is yet unknown. The present study therefore, sought to investigate the impact of healthy ageing in older adults(OA), on temporal duration processing relative to young adults(YA). Participants were administered a temporal match-mismatch task in which they viewed stimuli (spinning wheels or a series of 4 scene images) and were instructed to compare temporal duration information between study and test phases. Overall, the YA participants exhibited greater accuracy relative to the OA participants, thus

confirming the impact of ageing on the processing of this function. In lieu of this finding, further investigation into different memory loss stages of mild cognitive impairment and damage to the medial temporal lobe, could further add to this field.

(15) Problematic Instant Messaging and Psychological Well-Being

Lionel Lansbury-Botha, supervised by: Dr. Masood Zangeneh & Dr. Adam Sandford. University of Guelph-Humber

Excessive and especially habitual cell phone use is associated with mental health problems and social impairments. This cross-sectional quantitative study investigated relationships between problematic instant messaging cell phone behaviours (PIM), gender, and psychological well-being. Participants ($n=125$) completed a questionnaire assessing age, gender, PIM using the SMS Problem Use Diagnostic Questionnaire (SMS-PUDQ), and psychological well-being using Ryff's Psychological Well-Being Scales (PWB). Data was analyzed using a two-factor independent measures ANOVA. Results showed that greater PIM is associated with lower levels of autonomy and overall psychological well-being. Highly-PIM is associated with lower personal growth scores. Not-PIM and Highly-PIM are associated with lower positive relations with others. No main or interaction effects of gender were observed. Findings suggest a bidirectional negative relationship between PIM and both autonomy and overall psychological well-being. They highlight a need for further study into highly-PIM, and social activity levels with PIM.

(16) Validation of the Patient Specific Function Scale for Memory Programs

Anthony Fallico, supervised by: Dr. Jill Bee Rich. York University

The Baycrest Memory and Aging Program (MAP) is a psychoeducational program designed to improve understanding of age-related memory loss and teach memory strategies. The Patient Specific Function Scale (PSFS) measures functional change in activity and is commonly used in occupational therapy settings. We explored whether the PSFS is an appropriate measure of functional improvements derived from participation in the MAP. Nine older adults had higher scores on the PSFS ($M = 5.74$; $SD = 1.68$) relative to their baseline scores ($M = 6.57$; $SD = 1.41$), $t(22) = 3.69$, $p = .0013$. When using minimum detectable change scores it is evident that there was no minimum detectable change in any of the participants. This data suggests that there is no clinically significance in the PSFS ability to detect change in functioning and the MAP's ability to improve life functioning.

(17) Understanding the Factors that Predict Academic Disengagement

Andie Storozuk, supervised by: Dr. Darcy Santor. University of Ottawa

Dropout is a problem for thousands of university students. Research has failed to examine proximal antecedents of dropout and how poor study habits and coping strategies contribute to academic disengagement. Although study habits and social emotional learning skills (SELS) have been shown to improve academic outcomes, there is no comprehensive measure of SELS for young adults. The present study examines to what extent academic skills and SELS influence academic disengagement and dropout. Undergraduate students ($n = 148$) completed an online survey regarding study habits, SELS, mood, academic difficulties, and adversity. Results were consistent with the hypotheses. Psychometrics demonstrated internal consistency for SELS ($\alpha = .86$) and study habits ($\alpha = .85$) and both predict academic disengagement above and beyond levels of worry, anxiety, and depression. This study provides a measure of SELS for young adults and offers information on the importance of study habits and SELS in predicting academic disengagement.

(18) The Immediate Effects of Concussion in Young Adults: An EEG Analysis

Nathalee Ewers, supervised by: Dr. Ranil Sonnadara, Dr. John Connolly. McMaster University

As conventional brain imaging does not provide evidence of concussion, and behavioural assessments are unreliable, concussions are difficult to diagnose. The purpose of this study was to determine whether ERP components, specifically the MMN and P300 associated with attention and memory, could be used as markers of cognitive deficits in young adults who recently suffered a concussion. Participants (23 concussed, 10 controls) were presented with two auditory oddball paradigms during an EEG recording. Results suggest the P3a was significantly delayed in the concussed group. Visual inspection suggested that the P3b component might be slightly reduced, but this was not statistically significant. There were no differences in the MMN. The delay in P3a may indicate deficits in response-based attention in concussed individuals. Therefore, these findings may provide evidence of cognitive deficits resulting from concussion. Further research is required to determine whether these ERP components can serve as reliable biomarkers for concussion.

(19) Examining the Association of Autism and ADHD Symptoms on Emotion Dysregulation

Julia Martini, supervised by: Dr. Jonathan Weiss. York University

Research suggests that both autism spectrum disorder (ASD) and attention-deficit hyperactivity disorder (ADHD) symptomatology may be related to emotion dysregulation (ED), potentially increasing the risk of ED in children with both ASD and associated ADHD symptoms. However, researchers have yet to explore ED in this population. In the present study, we examined (1) ED in 57 children (8-12 years) with ASD+ADHD ($N = 19$), ASD-only ($N = 19$), and children without neurodevelopmental disabilities ($N = 19$) using both parent and child reports, and (2) the potential contribution of ASD and ADHD symptoms to ED. Using a MANCOVA, we demonstrated that the ASD+ADHD group had significantly greater ED than the ASD group. Multiple mediation analyses revealed that the ASD+ADHD group had greater hyperactivity symptoms, which explained their increased ED. This finding suggests hyperactivity symptoms may be predictive of ED providing insight for future intervention efforts in children with ASD+ADHD.

(20) Instagram Use in Emerging Adults

Laura Dungo, supervised by: Dr. Wendy Ellis. Western University

Instagram is used by 90% of emerging adults. A review of past literature shows that there is a lack of research on self-presentation and motivations for Instagram use. Furthermore, like-seeking behaviour is a relatively new area of research and is a prominent activity for many Instagram users. The present study aims to understand emerging adults' use of Instagram, particularly in relation to their attachment styles with friends and dating partners. It is expected that insecure attachment and higher ratings of deceptive like-seeking will be positively related to higher ratings of false self-presentation. Participants in this study were 110 university students (92 females, 18 males) ranging from 18 to 22 years old in age. Participants completed five online self-report questionnaires related to their peer relationships and Instagram use. Results showed that deceptive like-seeking positively predicted false self-presentation on Instagram and this relationship was strengthened for individuals with anxious partner attachments.

(21) Understanding Genetic Contributions to Schizophrenia: We Can Do Better for Patients

Victoria Giampaolo, supervised by: Dr. Pat Barclay. University of Guelph

This theoretical project incorporated clinical psychiatric and human genetics perspectives to examine the problems with the assumptions inherent in the contemporary classification of schizophrenia, findings in recent literature about the genetic contributions to schizophrenia, how genetic research might help inform classification, and how this information can provide clinical benefits to patients with schizophrenia. The DSM-5 was found to be inadequate because it does not incorporate any knowledge about genetic contributions to the etiology of mental disorders. Consideration of genetic influences is important because they shape mental disorders' population structure, which do not fit the DSM-5's implied classification models. Incorporating the population structure into the classification system would make diagnoses more evidence-based, and thus more clinically meaningful. This would also open up more accurate and impactful patient education and support options.

(22) The Benefits of Sexual Communal Motivation for Couples Coping with Low Desire

Amanda Bockaj, supervised by: Dr. Amy Muise. York University

Sexual Interest/Arousal Disorder (SIAD) is a sexual dysfunction where women experience distressing low desire and/or arousal. We tested the association between a novel interpersonal factor—sexual communal motivation—and satisfaction in couples coping with SIAD. First, compared to a control sample of couples without a sexual dysfunction, couples coping with SIAD reported lower sexual and relationship satisfaction. Next, using multilevel modelling we found that when women with SIAD reported higher sexual communal strength (i.e., were motivated to be responsive to their partners' sexual needs), both they and their partners report higher sexual and relationship satisfaction. When women with SIAD and their partners reported higher sexual communal understanding (i.e., were understanding about their partner's disinterest in sex), their partner reported higher relationship satisfaction. This is the first study to include both partners in couples coping with SIAD and demonstrates the importance of responsiveness—for sexual needs and low desire—in satisfaction.

(23) Exploring Cognitive Predictors Through the Pathways to Mathematics Model

Nicole Collins, supervised by: Dr. Marcie Penner - Wilger. King's University College at Western University

Research has shown that a child's numeracy skills in Kindergarten are predictive of their math skills and overall academic achievement later in life. Using data collected from 155 Senior Kindergarten students (74 males; $M = 70.10$ months), the goal of this study is to better understand the relation between cognitive predictors and early numeracy. This study examines the quantitative, linguistic and working memory predictors of the Pathways to Mathematics model. It is hypothesized that quantitative, linguistic, and working memory abilities will each significantly predict early numeracy. Children's quantitative abilities were measured using a subitizing task, along with symbolic and non-symbolic magnitude comparison tasks. Children's linguistic abilities were measured using receptive vocabulary and phonological awareness tasks. Finally, working memory abilities were measured by verbal and visuospatial span tasks. A multiple regression revealed that both linguistic and working memory abilities predicted early numeracy skills, but quantitative abilities did not.

(24) Covert Retrieval and the Forward Testing Effect

Alysha Cooper, supervised by: Dr. Harvey Marmurek. University of Guelph

This study assessed whether covert retrieval (i.e. mental recall) yields the forward testing effect. Participants studied two word lists of paired associates with the cue words from the first list being re-paired with new responses on the second list (A-B A-D paradigm). In between the two lists, participants were asked to either draw an image, restudy or covertly recall the first list. The effects of interpolated task on both second list recall and intrusion rates were examined. The results demonstrated that drawing was beneficial compared to restudying for final list recall. However, both covert retrieval and drawing significantly reduced the number of intrusions compared to restudying. Therefore, covert retrieval may not result in the same magnitude of the forward testing effect as overt retrieval but does seem to segregate the lists in one's memory. This research can contribute to finding the boundary conditions of the forward testing effect.

(25) Caregiver Behaviours and Children's Distress: The Moderating Role of Caregiver Relationship Style

Marette Abdelmaseh, supervised by: Dr. Rebecca Pillai Riddell. York University

Caregiver behaviours and other caregiver factors play an important role in predicting their children's distress during painful medical procedures. The current study sought to investigate the moderating influence of caregivers' relationship styles on the association between their behaviours and their preschooler's pain immediately after receiving a needle as well as one minute later. Families were recruited from pediatric clinics and their children's preschool vaccination appointments were video recorded and behaviourally coded. Regression analyses were performed to test the hypotheses for the potential moderating effect of caregiver relationship style. Results showed that caregivers' relationship styles did not interact with their behaviours during immunizations to predict their children's level of expressed pain. Possible explanations for the null findings include the particular methods used to assess the study's key variables. Future research should investigate this association using different measures and with different samples to reveal further insights about the relationship between variables.

(26) In Their Shoes, Yet Again: Exploration of Media Stories and Personal Identity

Stephanie Morris, supervised by: Dr. James W. Allen. Trent University

The present study explored the relationship between media stories, personal relationship narratives, and identity. Participants consisted of undergraduate students from Trent University ($n = 40$; mean age = 22.3). The procedure involved a semi-structured interview based on McAdams (2008) Life Story Interview in which media and personal narratives were collected, followed by three self-report questionnaires related to empathy, experience-taking, and love styles. Narratives (media and personal) were coded for meaning-making and vividness. A significant relationship was found between the fantasy subscale of empathy and experience-taking. An exploratory analysis revealed a significant relationship between total meaning-making and total vividness in relationship stories. In addition, a thematic analysis on the question, "What do you think the necessities are for a successful relationship?" uncovered three key themes across dominant love styles: trust, communication, and understanding. Discussion focused on meaning-making and vividness in personal narratives, and connections found between media and personal stories.

(27) Where does the Apple Fall; An Investigation of Generational Implicit and Explicit Math-Gender Stereotyping

Emily Mastragostino, supervised by: Dr. Jennifer Steele. York University

Some previous research suggests that parents' explicit math-gender stereotyping is related to their children's math-gender stereotyping and math attitudes (LePage, 2003). The purpose of this study was to examine the relationship between parents' and children's explicit and implicit math-gender stereotyping and math attitudes at an important time of academic decision making: adolescence. Adolescent girls ($n = 265$) and boys ($n = 85$) and at least one parent completed a math-gender stereotyping Implicit Association Test and a questionnaire regarding math attitudes and stereotyping. Results revealed that adolescent ($M_{age} = 17$ years) and adult ($M_{age} = 46$ years) participants gender stereotyped math implicitly and explicitly. There was no significant relationship between parents' and adolescents' explicit or implicit math-gender stereotyping. Importantly, only mothers' implicit stereotyping was correlated with their daughters' math attitudes. No similar relationships appeared for fathers and daughters or either parent and sons. Limitations and future directions will be discussed.

(28) Linguistic Components of Online Lectures and Its Relation to Student Test Scores

Torin Young, supervised by: Dr. Evan F. Risko. University of Waterloo

Online alternatives to university courses are becoming increasingly popular among students (Allen & Seaman, 2007). Recent studies have utilised Coh-Metrix, an automated text analyzer to examine discourse in both texts and lecture discourse (Graesser, McNamara, & Kulikowich 2011; McNamara, Graesser, McCarthy, & Cai, 2014; Medimorec, Palvik Jr, Oleny, Gaesser, & Risko, 2015); We extend this effort here by analyzing linguistic features of lectures and how they relate to student performance across a large corpus from an online course. In particular, we were interested in determining whether there is (a) evidence for linguistic compensation within the lectures of an online course and (b) whether computational generated measures of language are correlated with actual student performance.

Poster Session D (2:45-3:45pm, Sears Atrium)

(1) Exploring Loneliness as a Correlate of Daydream Content and Frequency

Caitlin Duncan, supervised by: Dr. Ian Newby-Clark. University of Guelph

People spend 30-50% of their waking lives engaged in off-task thoughts. One type of off-task thought is daydreaming and a great deal of daydreaming has a social nature. The purpose of this research was to investigate how loneliness relates to the content and frequency of daydreams. Two hundred and sixty one participants from the University of Guelph completed the UCLA Loneliness scale in mass testing. During an in-lab session, participants recorded their thoughts, later indicated which of those thoughts were daydreams and rated those daydreams according to how social, positive, and negative they were. An exploratory data analysis revealed that lonelier individuals may daydream less than individuals who scored lower on the UCLA Loneliness scale. In addition, lonely individuals may have less social daydreams, and more daydreams of a negative nature. Implications of these findings are discussed.

(2) Timing Bach: Influences of Tempo on Emotion Perception in Music

Joyce Chan, supervised by: Dr. Michael Schutz & Aimee Battcock. McMaster University

Acoustic properties govern emotion perception in music. Preliminary studies recognized timing as a significant cue when quantifying tempi in Bach's Well-Tempered Clavier (WTC). Performer-controlled cues (e.g. tempo) are musical parameters performers can manipulate to vary emotional objectives; composer-controlled cues (e.g. pitch) outline a composition's structure. This study investigates how tempo manipulations influence listener perception of conveyed emotion. Thirty non-musician participants listened to Musical Instrument Digital Interface (MIDI) excerpts (set at a median tempi from analyzed collection of performances of the WTC), and provided ratings on valence and arousal scales. Ratings to expressionless MIDI excerpts serve as baseline perceptual emotional ratings, to be compared against ratings collected in a previous experiment of corresponding pieces with expressive cues, performed by Friedrich Gulda. Linear regression analyses will investigate how musical cues contribute and predict for listener ratings. Results will contribute to understanding emotion and the role of structural and interpretive cues.

(3) The Effect of Vestibular Stimulation on the Perception of Own-Face Size

Y. Isabella Lim, supervised by: Dr. Laurence Harris. York University

Body representation refers to the implicit ability to track and encode the body's state. Input from the sensory systems is integrated for this to occur. When sensory input is manipulated, body representation becomes malleable. Body size distortions have been found within eating disorder and healthy populations. It is unclear how size perception is affected when body representation is manipulated. In the present study, we investigated whether the presence of disruptive galvanic vestibular stimulation (dGVS) would disrupt face size perception. A novel psychophysical method

was used to measure accuracy (D'Amour & Harris, 2017). The Body Shape Questionnaire (Cooper et al., 1986) was also administered. Vestibular stimulation had an effect on face size perception and was influenced by gender and body satisfaction. Females differed in face size perception accuracy based on their body satisfaction level and whether dGVS was present. These results demonstrate that vestibular signals contribute to and modulate body representation.

(4) Effects of propionic acid on social odour in adult male rats

Katie Benitah, supervised by: K-P. Ossenkopp & M. Kavaliers. Western University

Autism spectrum disorder (ASD) is a neurocognitive disorder characterized by sensorimotor and developmental impairments. Studies indicate that propionic acid (PPA) can create behavioral abnormalities and neuroinflammatory responses in rats that are parallel to ASD. Rats can discriminate others on the basis of their odour; odours carry vital information such as whether or not conspecifics are safe to approach. This has been demonstrated using the sickness-inducing drug, lipopolysaccharide (LPS). Rats treated with LPS are avoided by control animals. The present study investigated if rats can detect PPA-associated odours. The sample consisted of 16 adult rats, assigned randomly to one of two groups: no-injections or injections with one of: PPA (500mg/kg), LPS (200?g/kg), PBS (50?g/kg), or NaCl (2.0mL/kg). Results revealed that rats can distinguish the odours of conspecifics treated with a sickness-inducing compound, and prefer the odours of conspecifics. No significant differences in activity were detected for PPA-comparisons.

(5) Sense of Purpose in Individuals from Rural and Urban Communities

Rachel Simec, supervised by: Dr. Deena Logan. University of Guelph-Humber

The quality of life in rural and urban communities is often compared, and typically, rural life is found to be of a lower quality than that of its urban counterpart. However, a different measure of one's life quality is rarely considered - their sense of purpose. One's sense of purpose refers to the drive one possesses that allows them to create meaning in their life regardless of the circumstances, and can act as a critical predictor of physical and mental health. This study will investigate if differences are present in the sense of purpose in individuals from rural and urban communities. Participants from both communities completed Crumbaugh and Maholick's (1969) Purpose in Life Test that assessed the degree of purpose present in each individual. Though no statistically significant differences were identified, the findings generated discussion surrounding one's personal concept of place and the challenges of studying the emerging adulthood population.

(6) Coping skills and resilience as moderators for the relationship between employment status and symptom severity anxiety disorder population.

Lucia Juehea Lee, supervised by: Dr. Karen Rowa & Dr. Randi McCabe. McMaster University

In most developed countries, mental illnesses including anxiety and depression are the leading cause of unemployment and long-term disability. Given the importance of employment for wellness, the goal of our research is to examine two potential factors (resilience and coping style) that may be associated with employment in a sample of individuals with anxiety disorders. Participants completed a series of self-report questionnaires measuring employment status, resilience, coping style, and symptom severity. Results suggest a significant difference in symptom severity and resilience scores between employment groups with the employed group reporting lower symptom severity and higher resilience. Group differences in resilience remain when symptom severity is held constant. Coping style did not differ between groups. As this is a correlational study, it is unclear whether symptom severity leads to lower resilience or vice versa. Further research is warranted to better understand the important role that resilience may play in occupational functioning.

(7) Factors Associated With Sense of Community For Cisgender Sexual Minorities in Waterloo Region

Sara Ashtiani, supervised by: Dr. Ciann Wilson & Dr. Todd Coleman. Wilfrid Laurier University

Experiencing a sense of community has been considered a basic human need. Having a sense of belonging to ones community grants individuals with a sense of collective purpose, as well as access to resources, often in times of need. This study uses data collected from the OutLook Study (N = 414), to run a multiple regression predicting sense of community from factors that may be associated with sense of community for cisgender sexual minorities in Waterloo Region. Results show that increase in awareness of and access to LGBTQ+ friendly agencies or service and LGBTQ+ friendly spaces to socialize in will increase sense of community, while experiences of homophobia will

decrease sense of community. This study can be used to bring attention to the importance of the subjective experiences of marginalized populations within the context of community, in order to promote effective and inclusive community practice.

(8) Link between Social Comparison, Food Hedonics & Restraint Status

Ayesha Iqbal, supervised by: Dr Jennifer Mills. York University

Restrained eaters have a high tendency to rely on social and food cues to regulate hunger. In the present study, all participants were served a 6-inch subway sandwich and cookies for dessert. Participants were randomly assigned to either a “worse than” condition (participant told that previous participant got a better meal than them), or a “better than” condition (participant told that previous participant got a worse meal than them) and control (participant not told about any other participant). Participants ate and rated the subway first and then cookies (ad lib). A significant interaction reflected the fact that when restrained eaters thought they got a worse meal than the last participant, they tended to like cookies less than restrained eaters in control condition. Furthermore, restrained eaters ended up eating more cookies than unrestrained but restrained eaters in worse than condition ate fewer cookies than control due to upward social comparison.

(9) The Effect of Knowledge of Upcoming Haptic Feedback on Normal and Pantomime Grasps

Nathan Katz, supervised by: Dr. Patrick Brown. Western University

Normal grasping actions towards real objects are mediated by online visuomotor control, and provide haptic feedback. Studies of visual form agnosic patient DF suggest that pantomime grasps are different; they recruit the visual Ventral stream, while normal grasps recruit the visual Dorsal stream. This functional duality underlies the eponymous Two Visual Systems Hypothesis (TVSH). Existing reports of natural prehension during interleaved normal and pantomime grasps, and findings that pantomime grasps are unsusceptible to knowledge of upcoming haptic feedback, are presented as challenging the TVSH. However, these studies have methodological shortcomings that compromise their results. The current study replicated these experiments while eliminating those methodological shortcomings. Healthy participants performed grasping tasks using a mirror setup, while data on grasp kinematics were recorded. We report that interleaving normal and pantomime grasps does not normalize prehension, and pantomime grasps are susceptible to knowledge. These findings highlight the role of cognition in visuomotor control.

(10) The Effect of GLUT1 and MCT1 Inhibition on Glucose and Lactate Levels Following Intraperitoneal Injections of Metabolic Fuels

Dina Yazji, supervised by: Dr. Claude Messier. University of Ottawa

Studies have shown that following intraperitoneal (i.p.) injections of metabolic fuels, an increase in blood lactate levels was followed by an increase in brain extracellular compartment (ECC) glucose levels, while brain ECC lactate levels remained stable. We hypothesized that the increase in blood lactate is causing the increase in brain ECC glucose. We administered inhibitors of glucose (GLUT1) and monocarboxylate (MCT1; lactate transporter) transport, WZB117 and AZD3965 respectively, to adult male CD-1 mice, followed 3 hours later by injections of glucose, lactate or fructose. There were four treatment conditions: Vehicle (DMSO), AZD3965, WZB117, and AZD3965 + WZB117. We found that injections of WZB117 or AZD3965 alone blocked the increase in brain glucose levels. Lactate injections following AZD3965 treatment suppressed the rise in brain glucose levels. Glucose injections caused an increase in brain glucose levels following WZB117 treatment. Fructose injections caused a general decrease in brain lactate levels following WZB117 treatments.

(11) Exploring how women talk about their postpartum depression in social media

Gracielle Schwenck, supervised by: Dr. Elena Neiterman. University of Waterloo

The literature on postpartum depression (PPD) is relatively vast and provides important insights on various aspects of the disorder, such as risk factors, rates, challenges, and methods for prevention. However, the stigma associated with PPD may impact these studies if women limit their disclosure. To circumvent this potential issue, and study how women discuss their personal experience of PPD in an anonymous setting, 67 posts from 6 PPD blogs and 6 PPD forums were analyzed using inductive thematic analysis. The study answered how mothers explain the cause of their PPD, what barriers they identified to seeking professional help, and what support do they require before and during their recovery. An overarching theme across the discussions was a sense of guilt, which often prevented mothers from seeking support and professional help. I propose that increased awareness of PPD is essential to reducing both stigma and guilt, and identifying mothers at risk.

(12) Determining if Oxytocin in the Medial Amygdala Mediates Object Recognition

Joshua Smit, supervised by: Dr. Elena Choleris. University of Guelph

Social recognition refers to the ability to distinguish between conspecifics, important for development of social bonds. Oxytocin, a neuropeptide produced in the paraventricular nucleus of the hypothalamus, is integral to social recognition. Estrogens within the paraventricular nucleus facilitate production and release of oxytocin, which then facilitates social recognition through action at oxytocin receptors in the medial amygdala. However, it remains unclear whether this estrogen/oxytocin interaction is specific to social recognition or extends to other forms of memory, such as object recognition. Object recognition refers to the ability to recognize various object characteristics including familiarity, which was tested by presenting mice with a novel and familiar object. When an oxytocin receptor antagonist was infused into the medial amygdala, mice preferentially investigated the novel object, indicating that object recognition was unaffected. Hence, oxytocin in the medial amygdala appears to specifically mediate social recognition and not other types of recognition memory.

(13) The interaction of estrogen and norepinephrine in memory modulation

Azara Lalla, supervised by: Dr. Katherine Duncan & Dr. Gillian Einstein. University of Toronto

The literature on estrogen and memory performance is highly disputed. The interaction of estrogen with neurotransmitters like norepinephrine may be key to resolving controversies surrounding the impact of estrogen on memory. Estrogen's effects on memory may be mediated through its potentiation of norepinephrine release. The Glutamate Amplifies Noradrenergic Effects model provides a framework for arousal-induced norepinephrine enhancement of prioritized information (Mather et al., 2015). Estrogen may further enhance the selectivity of memory for salient information. The present study investigates whether high estrogen improves memory selectivity for important information encoded under arousal. We will test women at two different times during the menstrual cycle on a task that manipulates level of arousal and stimulus salience. The results of this study may shed light on a controversy in the estrogen and memory literature, while broadening our understanding of basic processes like arousal and contributing to scientific knowledge about women's cognitive health.

(14) Visual Adaptation of Perceived Body Size

Deborah Alexe, supervised by: Dr. Laurence R. Harris. York University

Perceptual biases of body size are influenced by different environmental stimuli and by experience. However, it is not yet clear how body size perception may be affected when body representation is manipulated. In this study, we tested perceived body size accuracy after five minutes of exposure to an image of their body distorted in width by 20%. Accuracy was measured using a novel psychophysical method that taps into the implicit body representation (D'Amour & Harris, 2017). The time course of visual adaptation effects was measured. Altered visual feedback caused changes in perceived body size. Adapting to a bigger body resulted in size overestimation whereas underestimations occurred after adapting to a smaller body. These distortions also lasted throughout testing and did not fully return back to normal. These results provide insights into body size perception and representation, revealing how dynamic and flexible they can be.

(15) Exploring Gender Differences of Felt Sexual Ambivalence in Relationships:**Comparing the First and Most Recent Sexual Interaction**

Julia Manzini-Alary, supervised by: Dr. Paula Barata. University of Guelph

Sexual ambivalence is an internal feeling of conflict with reasons for and reasons for not wanting to have sex. Sexual ambivalence shatters the notion that sex is binary (wanted or unwanted). This study explores how sexual ambivalence differs between 1) men and women, and 2) the first and the last time long-term heterosexual partners had sex. Participants were presented with a sexual ambivalence measure related to the first and last sexual experience with their partner. A split plot ANOVA will be used to analyze this data. It is hypothesized that women will score higher compared to men, and 2) women will indicate having been more sexually ambivalent the first time compared to the most recent time they had sex with their partner. Additionally, open-ended questions were asked to detect potential factors related to sexual ambivalence. This portion is exploratory and will be analyzed using content analysis.

(16) Navigating Selfhood and Space: Self-Awareness on Toddlers' Movement through Apertures

Emily Veall, supervised by: Dr. Jean-Paul Boudreau. Ryerson University

Self-awareness develops through exploration of the environment, wherein both social and physical interactions may allow for an individual to conceptualize the self as a distinct entity. We understand that toddlers display an awareness surrounding the objectivity of their bodies, however should also consider the degree to which they define their self-concept with reference to their social agency. The current study explores how social and physical forms of self-awareness are expressed early in life, and furthermore examines how this competency may relate to toddlers' ability to navigate physical spaces. Twenty-four to twenty-six month old toddlers participated in two self-awareness tests, based on Gallup's original (1970) Self-Recognition Mirror Task. They were subsequently encouraged to walk through progressively narrower enclosed spaces- defined as apertures. The present study did not observe a relationship between self-awareness and effective navigation through apertures, however sheds light on how young children uniquely interact with the world around them.

(17) Processing Material Properties Using Ensemble Perception

Deepika Elango, supervised by: Dr. Jonathan Cant. University of Toronto

Ensemble perception attempts to explain the rich visual experience of humans through the computation of an average for low-level, high-level, and abstract-level features. The purpose of this study is to determine whether ensemble perception supports the processing of material properties (i.e. perceived weight of objects) through a series of 2 experiments. In specific, data obtained was used to perform a base-ensemble correlation to test whether participants are computing averages using multiple items from a set and trial-ensemble correlation to test difficulty in computing averages. In contrast to the hypothesis, Experiment 2 results failed to find a significant base-ensemble correlation across stimulus set size. However, in support of the hypothesis, a trial-ensemble correlation revealed that participants found it increasingly difficult to compute averages as set size increased. In summary, data obtained cannot be used to support the hypothesis that ensemble perception plays a role in processing material properties of objects.

(18) The coordination of eye, head and hand movements during visual target reach

Haider Al-Tahan, supervised by: Dr. John Douglas Crawford. York University

Much emphasis has been placed on trying to understand the motor control principles behind the coordination of complex multi-movement systems in humans. Previous research has provided insight into eye-head and eye-hand coordination within a 2D plane, but there is little understanding of the more natural condition of eye-head-hand coordination during a 3D reach in humans. We investigate the relative contribution of the head to gaze movement, in a head free paradigm. In this experiment, participants were instructed to perform a saccade with and without arm movement towards a visual target that can at any of the predefined 25 locations on the screen. An eye tracker and two Optotrak cameras were utilized monitor gaze, hand and head position. Based on human and Rhesus monkey studies, we hypothesize that head would contribute more when saccade is accompanied by an arm movement, resulting in higher head velocity and/or amplitude.

(19) The Gaze Cascade Effect in Perceptual Decision Making

Noor Al-Azary, supervised by: Dr. Lori Buchanan. University of Windsor

The Gaze Cascade Effect was first observed by Shimojo and colleagues in 2003 in preferential decision tasks involving similar faces in which a chosen option is looked at longer than unchosen options. Since then a plethora of eye-tracking studies have emerged to assess this effect, mostly confined within the context of preferential decision. The present study investigates the saliency of this effect in a logic-based perceptual decision task. Participants were asked to judge 1 of 2 items on-screen as higher value. In the first block of trials the compared items differed in value (unambiguous group), in the second block the compared items were equal in value (ambiguous group). It is hypothesized that ambiguously chosen options have larger overall dwell times and end-of-trial dwell times than unambiguously chosen options. Results suggest that factors of conflict rather than preference contribute to gaze biases or GCE's in decisional tasks.

(20) Personality Traits Modulate Brain Activity

Janika Francis, supervised by: Dr. Vincenzo Deluca. University of Toronto

The aim of the study is to investigate whether personality traits can modulate the brain's activity in resting state by demonstrating differences in the five frequency bands: delta, theta, alpha, gamma and beta waves. Previous literature has studied the alpha band more extensively during resting state but the involvement of neural oscillatory

activity in personality remains largely unknown. The subjects recruited for the study includes 42 healthy individuals. The personality scores were scored using the NEO Five Factor Inventory. The trait openness was found to be negatively related to average P3 delta power. Individuals who scored low on agreeableness had higher averages of F4 delta power and O1 beta-2 power. Individuals high on conscientiousness had higher averages of P4 delta power. Lastly, individuals high on neuroticism had higher averages of P4 theta power. Thus, the results show that personality traits can be related to patterns of resting regional brain activity.

(21) Role of Socioeconomic Status in the Relationship Between Bicultural Identity and Well-Being

Zunaira Amin, supervised by: Dr. Melody Wiseheart. York University

Previous research has found a significant positive relationship between high bicultural identity integration and well-being, as well as between high bicultural self-efficacy and well-being. The role of socioeconomic status in this relationship has not yet been investigated. We conducted an online survey study with 403 undergraduates to determine whether or not this relationship remains after controlling for socioeconomic status, and how much of the relationship is accounted for by socioeconomic status. Participants completed surveys on their level of bicultural identity integration, bicultural self-efficacy, psychological well-being, life satisfaction, and socioeconomic status. Results have not yet been determined (analysis ongoing).

(22) The Role of Work Attitudes, Goal Stability, and Career Engagement in Career Distress and Perceived Stress

Sepi Parvizian, supervised by: Dr. Bernadette Campbell. Carleton University

What it means to have a 'career' is rapidly changing. The job landscape has become increasingly uncertain and ill-defined, especially for those just transitioning to the workforce. In this context, career preparation and decision-making can be a stressful experience. To explore attitudinal and behavioural correlates of career distress, and overall stress, 317 upper-year undergraduates and recent university graduates were surveyed. Hierarchical linear regression analyses revealed that work attitudes and goal stability each explained significant variance in reported career distress. Specifically, cynical attitudes about work, goal instability, and low levels of career engagement were associated with career distress. Higher levels of perceived stress, more generally, were associated with goal instability and career distress. These findings suggest the importance of both career attitudes and behaviours in explaining career-related stress during the transition from university to work. Implications for research and practice in the area of career development and counseling are discussed.

(23) Characteristics and Patterns of Drug Use by Clients at a Detoxification Center in Ontario

Rosarie Planetta, supervised by: Stacey Dowling. St. Lawrence College

A descriptive study was conducted with a statistical analysis that included 40 months of archival data from a non-medical Detoxification Center in southern Ontario. Data recording sheets were utilized to collect information from client files to investigate potential trends. A total of 1445 client files were included in this study from September 2013 to December 2015. Comparison graphs were created with a randomized sample of 100 client files. Six hypotheses were tested: (1) The age of clients will be positively skewed; (2) The client age will have a positive correlation with the number of detox visits; (3) There will be a greater population of male to female clients; (4) There will be a greater population of urban to rural clients; (5) Alcohol will be the most frequently used substance; (6) More than 50% of client will have poly-drug use. The first five hypotheses were supported; however, the sixth remains unknown.

(24) The History of Willpower in Psychology

David Berman, supervised by: Dr. M. Pettit. York University

The current psychological conception of willpower is without consensus. While there being differing views about a phenomenon within psychology is not itself noteworthy, it is of some wider interest when it comes to something as salient as willpower. The disagreements regarding willpower's characteristics, or even existence, has some psychologists favoring a limited yet potent phenomenon, while others back a willpower with little influence over the impulsive unconscious. These conflicting views are mirrored in a wider conversation taking place in the public and popular press. Although the two camps were once situated along cultural or political lines, proponents on each side are now equipped with experimental evidence. Despite these efforts, the question remains: What exactly is

willpower? Since there is conflicting evidence regarding the nature of willpower, the current debate stands at a standstill. Because of this, a historical account will be included in order to help understand this nebulous phenomenon.

(25) Cross-Category Influence in Identifying Orientation-Filtered Faces and Textures
Alicia Serrano, supervised by: Dr. Allison B. Sekuler. McMaster University

Horizontal structure is the most important orientation structure during face identification. Picture-plane inversion more negatively affects identification of faces than non-face images; however, the face inversion effect requires intact horizontal structure. In this experiment, participants viewed upright or inverted horizontally-filtered faces embedded in vertically-oriented textures. Participants completed four conditions: 1-of-6 face or texture identification, with upright or inverted faces. Our study evaluates the influence of horizontal facial structure when identifying non-face stimuli, even when facial information is task-irrelevant. Since our visual system pools information across orientations, we investigated whether categorically different stimuli in orthogonal orientations would also be pooled. We found a face inversion effect, but no face-induced texture inversion effect. Texture identification was not affected by the orientation of the face, suggesting that we did not detect cross-category orientation pooling. This study will help us understand how categorical differences affect how we interpret the signal in our visual system.

(26) The Relation Between Non-Suicidal Self-Injury Scarring and Body Esteem
Kristen Whitfield, supervised by: Dr. Stephen P. Lewis. University of Guelph

Nonsuicidal self-injury (NSSI), the intentional self-inflicted body tissue damage without suicidal intent, associates with various mental health concerns (e.g., eating disorders, lower body image). However, it is unknown what role scarring from NSSI may place when considering the relation between body concerns and NSSI. The purpose of this study was to explore how body and appearance evaluations related to NSSI scarring. 98 students (17-32 years, 88% women) with NSSI scarring participated in an online survey. Results indicated that participants with positive perceptions on how others evaluate their bodies and appearance tended to report more positive scarring cognitions. Individuals with lower body evaluations had more concerns about their scars in social contexts. Additionally, global self-esteem was negatively related to the number of scars and positive cognitions on scarring. Implications for clinical practice may include the need for cognitions related to NSSI scars alongside issues such as body and self-esteem.

(27) Efficacy of rTMS at varying intervals on sleeping patterns of patients with MDD
Eman Nishat, supervised by: Jonathan Downar. University of Guelph

Nonsuicidal Repetitive transcranial magnetic stimulation (rTMS) is an emerging, non-invasive technique for treatment-resistant depression. rTMS is conventionally delivered once-daily and can require up to 30 sessions. Such lengthy courses impose a substantial logistical burden on patients, in addition to prolonging the course of their recovery. Recent findings suggest that administering multiple rTMS sessions daily can accelerate response to treatment without influencing efficacy. This study sought to determine whether accelerated rTMS treatments are a viable option for patients with depression experiencing disturbances in sleep. It was hypothesized that patients undergoing a twice-daily course of dorsomedial prefrontal cortex-rTMS at inter-session intervals of 60 minutes will experience faster symptom improvement. Current trends of preliminary data from 32 patients indicate that an inter-session interval of 60 minutes is suitable to accelerate response, suggesting that accelerated rTMS may be capable of achieving comparable results to conventional rTMS, while also increasing the rate of symptom improvement.

Notable Poster Presentations (4:00pm - 5:30pm, Sears Atrium)

★ (1) The role of the jumping to conclusions bias on subsyndromal hallucinations- and delusions- in young adults

Rashmi Weerasinghe, supervised by: Dr. Konstantine Zakzanis. University of Toronto

It is well established that the jumping to conclusions bias (JTC) is present in patients with schizophrenia. It is posited that this bias may play a role in the development of positive symptoms, meaning that it should be present prior to the development of a first-episode psychosis. Individuals with schizotypal traits experience subsyndromal positive symptoms and are at an increased risk of developing a first-episode psychosis. Thus, it was hypothesized that the JTC would moderate the relationship between schizotypal traits and subsyndromal delusions but not subsyndromal hallucinations. Undergraduate students (N = 66) completed the Beads Task (which measures JTC) and several questionnaires assessing schizotypal traits and subsyndromal positive symptomatology. Schizotypal traits were

significantly associated with subsyndromal hallucinations and delusions. JTC did not moderate this relationship, however. The JTC bias may develop as a result of positive symptomatology, rather than representing an endophenotype for the illness.

★ (2) Associations Between PTSD Symptoms and Relationship Functioning as Moderated by Alcohol Use

Phillip Ferguson, supervised by: Dr. Candice M. Monson. Ryerson University

Posttraumatic stress disorder (PTSD) and problematic alcohol use commonly co-occur follow trauma exposure, resulting in potentially interdependent associations with relationship functioning. The present study examined associations among PTSD symptoms, alcohol use and relationship functioning in a sample of 126 recently trauma-exposed individuals. PTSD was assessed with clinician interview, and alcohol use and relationship functioning were assessed via self-report measures. Bivariate analyses revealed significant positive associations between the PTSD avoidance cluster and both the quantity and frequency of alcohol use. As expected, overall PTSD symptoms were associated with relationship conflict. Moderation analyses supported the moderating role of the frequency of alcohol use in the relationship between PTSD symptoms and relationship conflict. At high-frequency alcohol use, there was a positive relationship between PTSD symptoms and relationship conflict; there was no association at mean or low-frequency alcohol use. These results will inform interventions in co-occurring PTSD and problematic alcohol use in relational contexts.

★ (3) A Cultural Examination of Beliefs about Mental Health and Help-Seeking among First-Year Psychology Students

Michelle Wan Ying Li, supervised by: Dr. Jessica Dere. University of Toronto

Previous cross-cultural research acknowledged disparities in mental health beliefs, specifically depression, between individuals from diverse heritage backgrounds. This study examined the influence of cultural values and degree of acculturation on Asian Minority (Chinese and South Asian) and Euro-Canadian psychology students' depression and help-seeking beliefs. By utilizing a mixed-methods approach along with a longitudinal design, 89 students completed the initial Time 1 study and 20 students returned to partake in the follow-up, Time 2 study. Results revealed Euro-Canadian students commonly endorsed biomedical causes, while Chinese students commonly endorsed psychosocial factors regarding depression etiology. Asian minority students demonstrated less positive attitudes towards seeking mental health support in comparison to their western counterparts. Lastly, knowledge acquired from introductory psychology course material influenced students' willingness to seek help for mental health related concerns. These findings suggest dissimilarities in depression beliefs between Euro-Canadians and Asian minorities, which impacted subsequent help-seeking attitudes.

★ (4) Audience Effect on Moral Licensing: The gap between actors and witnesses

Xinkai Du, supervised by: Douglas Brown. University of Waterloo

There have been abundant studies demonstrating that people tend to behave immorally after being moral, which is termed the moral licensing effect. However, the moral licensing effect is incongruent with classical research demonstrating that people tend to behave consistently. Experiment 1 attempts to resolve the paradox between moral licensing and moral consistency by exploring the moderating role of audience, and to test actors' prediction of witnesses' moral judgement under the presence of moral license. Experiment 2 attempts to examine if actors' predictions match actual witnesses' moral judgements.

★ (5) Reducing Intergroup Anxiety through Exposure to Humanizing Discourse: A Social Identity Perspective

Samantha Stitt, supervised by: Dr. Reeshma Haji. Laurentian University

Evidence suggests that media plays an integral part in propagating negative attitudes toward Muslims (Saleem, Prot, Anderson, & Lemieux, 2017). Little research has empirically investigated how media discourse can be harnessed to promote more positive attitudes toward outgroups. The present research took a step toward addressing this gap. University students completed individual difference measures and were asked to read a newspaper-style article that described Muslims in humanizing, rather than dehumanizing, terms; or a control article. Attitudes toward the outgroup were subsequently assessed. Results indicate that ingroup identification was a significant moderator. Specifically,

high ingroup-identifiers reported less intergroup anxiety toward Muslims when exposed to the humanizing article rather than the control article. Neither political orientation nor social dominance orientation were significant moderators of the effects of the manipulation. Implications of these findings are discussed in terms of optimizing discourse manipulations as interventions for promoting favourable outgroup attitudes.

★ (6) Analyzing Post-Error Slowing in a Recognition Memory Paradigm

Nic Cadman, supervised by: Dr. Judith M. Shedden. McMaster University

There exists a debate in the literature about the mechanisms causing post-error slowing. Three predominant theories are the criterion adjustment, error-monitoring, and orienting hypotheses. Using a speeded word categorization task with short and long RSIs followed by a recognition memory task, we sought to use memory as a way of analyzing the processing taking place after an error. When separating participants in low and high accuracy groups, the low accuracy group showed no effect of errors, while high accuracy individuals performed significantly worse at remembering post-error words relative to correct words. This would support the orienting hypothesis that suggests errors are treated as infrequent events that inhibit subsequent processing. However, a lack of slowing in the long RSI condition might suggest a time sensitive mechanism is also present that would need to be accounted for by the orienting account.

★ (7) The Retroactive Influence of Reward on Associative Memory and Memory

Integration

Hannah Tarder-Stoll, supervised by: Dr. Katherine Duncan & Dr. Margaret Schlichting. University of Toronto

Recent research has shown that reward can retroactively enhance item memory for unrelated stimuli when tested after a delay (Murayama and Kitagami, 2014; Patil et al., 2016). However, it remains unknown whether reward can retroactively enhance memory for complex associations. Here, participants encoded blocks of related (AB, AC) and standalone (XY) associations that were followed by either reward or no reward. Critically, the reward was unrelated to the encoded associations. Memory for direct (AB, AC, XY) and indirect (BC) associations was tested at either a short or long delay across subjects. We show that reward retroactively influences memory for direct associations after both delay times. Furthermore, we show that reward retroactively enhances memory for indirect associations after a long delay, but only in participants who show evidence of successful integration overall. Broadly, these results provide evidence that reward can influence memory for arbitrary associations both within and across episodes.

★ (8) Effect of Pubertal Lipopolysaccharide and Probiotic Treatment on C-Fos Expression in Mice

Karlene Stoby, supervised by: Dr. Nafissa Ismail. University of Ottawa

Exposure to stress during puberty can cause enduring alterations in brain functioning. The gut microbiome has been shown to also modulate brain functioning. Therefore, this study examines the effects of pubertal immune challenge and probiotic treatment on restraint-stress induced c-Fos expression in the hippocampus in adult male and female mice. Forty CD-1 mice were treated with either Lactobacillus Reuteri or a control broth at 5-7 weeks of age. At 6 weeks of age, mice were injected with either lipopolysaccharide or saline. In adulthood, mice were exposed to a restraint stress. Brain tissue was collected and stained for c-Fos expression in the CA1, CA3 and dentate gyrus of the hippocampus. There was greater c-Fos expression in LPS-treated mice compared to saline controls and probiotics mitigated the effect. This study highlights the importance of healthy gut microbiota in long-term neural response to stressors.

★ (9) The Impact of Safety Behaviour Use on Likeability in Interpersonal Interactions

Grishma Dabas, supervised by: Dr. Karen Rowa. McMaster University

Safety behaviours play a vital role in maintaining social anxiety disorder (SAD) symptoms (Clark & Wells, 1995). Previous research demonstrates that individuals who use safety behaviours are perceived as less likeable (McManus, Sacadura & Clark, 2008). This study examines whether safety behaviour use affects perceived likeability and genuineness during a conversation with a stranger in individuals with and without SAD. The SAD sample (n=29), consisting of individuals with a SAD diagnosis, and the low social anxiety sample (n=40), consisting of undergraduate students from McMaster University, engaged in a semi-structured interaction with a confederate. As expected, the SAD sample was perceived as less likeable ($p=.005$) and genuine ($p=.012$) by confederates, and less genuine by

themselves ($p=.03$), than the non-SAD sample. The association between group status and likeability was fully mediated by safety behaviour use. These results imply that safety behaviours may be associated with the negative social outcomes individuals with SAD experience.

★ (10) Association Between Hair Cortisol Concentration and Depressive Symptoms in Childhood

Andrea Sandstrom, supervised by: Dr. Elizabeth Hayden. Western University

Stress can lead to hyperactivity of the Hypothalamic Pituitary Adrenal (HPA) axis. This results in abnormal secretion of the body's stress hormone cortisol, prolonged exposure to cortisol can have negative effects on the brain including increased risk of depression. One novel way to assess cortisol is through the hair. Although recent studies have provided evidence supporting the validity of hair cortisol as a measure of chronic stress, the relationship between Hair Cortisol Concentration (HCC) and depression is still unclear. I examined the relationship between hair cortisol and changes in depression in 56 seven-year-old girls who were re-assessed at age 8. Using hierarchical multiple regression, I found that HCC was associated with an increase in depressive symptoms. The findings of this study implicate the usefulness of HCC as a measure in developmental psychopathology, and contribute to existing literature on the role of chronic stress in the development of depression.

★ (11) The robustness of same-race preference in young children's selective social learning

Marina Apostolopoulos, supervised by: Dr. Lili Ma. Ryerson University

When learning culturally-neutral information from two contrasting sources, Caucasian but not East-Asian Canadian children prefer to learn from same-race others (e.g., McDonald, Ma, Gaither, & Chen, in prep.). Extending this research, the present study explored whether Caucasian ($N = 23$) and East-Asian ($N = 13$) Canadian children would show different patterns of same-race preference when learning culturally-relevant versus culturally-neutral information. Preliminary results suggested that, when deciding from whom to seek information about novel objects and activities pertaining to Japanese culture, both Caucasian and East-Asian children preferred to ask an East-Asian informant as opposed to a Caucasian informant. Replicating previous work, Caucasian but not East-Asian children showed a preference for same-race informants when learning culturally-neutral information. These data provide some evidence that children are sensitive to the "ethno-match" between culturally-relevant new knowledge and the ethnic background of informants, which may overturn their preference to learn from same-race others.

★ (12) Cultural Relevance of Intrusive Parenting: Differentiating Five Forms of Psychological Control

Qi Fang, supervised by: Dr. Charles C. Helwig. University of Toronto

Psychological control refers to intrusive parental manipulation of children that interferes with children's individuation process (Barber, 1996). Longitudinal effects of different forms of psychologically controlling parenting practices (i.e., Shared Shame, Social Comparison Shame, Love Withdrawal, Harsh Psychological Control, and Relationship-Oriented Guilt Induction) on Chinese urban ($n=349$, $M = 12.51$) and rural ($n=293$, $M = 11.70$) adolescents' psychological well-being were examined. Participants reported their perceptions of parental psychological control practices and well-being at 6-month intervals, from October, 2016 to October, 2017. Harsh Psychological Control and Love Withdrawal were shown to be more harmful than other forms of control. Within-culture variation was found such that urban adolescents were more affected by Relationship-Oriented Guilt Induction, whereas rural adolescents were more affected by Social Comparison Shame. Together, these findings advance our theoretical understanding regarding the multidimensionality of parental psychological control, in that some practices are universally harmful, whereas the effects of others are contextually specific.

★ (13) Does children's shyness level moderate the relationship between executive functioning and communication?

Shanan Floto, supervised by: Dr. Elizabeth Nilsen. University of Waterloo

Objective: Executive functioning (EF), particularly working memory (WM), has been found to facilitate children's communicative abilities. However, the degree to which temperamental traits, such as shyness, may moderate this relationship is unclear. Method. Children between the ages of 8-11 ($Mage = 9$ years; 8 months, $N = 39$) completed a

pragmatic judgment task, two EF tasks [assessing WM and inhibitory control (IC)], and shyness questionnaire. Parents completed questionnaires assessing their children's communicative ability and EF. Results. Children's performance on the EF tasks related to their pragmatic judgments, however, relations were not significant once age was controlled for. Parents' report of EF was related to parent-reported communicative ability. Shyness did not relate to pragmatic knowledge or communicative ability, nor did it moderate relations between task EF and communication. However, there was a marginal interaction wherein parent-reported EF related to pragmatic judgment for children at high (but not low) levels of shyness.

★ (14) Effects of Mobile Media on Language Acquisition in Monolingual and Bilingual Infants

Alexandra Vanderschot, supervised by: Dr. Christopher T. Fennell. University of Ottawa

The objective of this study is to determine how mobile media (MM) impacts infant's vocabulary. Research suggests apps can benefit children in educational settings but little is known about impacts in everyday life. Recommendations have been made for limiting television viewing (TV) yet no recommendations have been made for MM use. We are interested in the effects of MM in comparison with the known effects of TV. Sixty-three parents of children between the ages of 4 and 35 months ($M = 16.17$) responded to an online survey battery, 14 bilingual children (10 females) and 49 monolingual children (24 females). Partial correlations controlling for age showed negative correlations between MM and vocabulary. Touch screen use, while expected to increase vocabulary, negatively correlated with bilingual vocabulary only. This study may serve as a valuable resource for parents as to how to effectively use MM and for researchers to make MM usage recommendations.

★ (15) Patient and Partner Satisfaction with Couplelinks: an Online Intervention for Young Couples with Breast Cancer.

Adina Tanen, supervised by: Dr. Karen Fergus. York University

Young women with breast cancer (BC) and their partners face unique psychological challenges. This study evaluated participant satisfaction with "Couplelinks," an online psychosocial intervention designed for young couples affected by BC. The objectives were to assess the perceived benefits and areas of improvement with respect to the program's (1) content, (2) online modality and (3) user experience. Analysis of feedback from 32 heterosexual couples revealed that the intervention helped couples: open channels of communication; set aside time for each other; gain insight into their relationships; and feel a sense of togetherness. According to participants, the online modality was convenient and accommodative, but some desired adjunctive in-person contact. The professional facilitator's supportive role was consistently viewed as beneficial, though feedback on their experience completing the self-managed aspects was sharply divided. The results support the acceptability of the Couplelinks program while offering directions for improvement of online couple-based intervention in cancer.

★ (16) The Role of Parental Minimizing and Monitoring Responses in Pediatric Chronic Pain Outcomes in Youth

Caroline Summers, supervised by: Dr. Nez Elik. McMaster University

Pediatric chronic pain impacts 11-38% of youth and is associated with lower quality of life. Parental psychological flexibility (PF), the ability to accept distress regarding their youth's pain, is associated with optimal youth outcomes. However, the mechanism behind this is unclear. Parental responses to their youth's pain (minimize, monitor) may be an important factor. Youth ($n=104$; aged 8-17 years) and their parents completed questionnaires at the Pediatric Chronic Pain Program at McMaster Children's Hospital. Youth completed questionnaires on their pain intensity and quality of life, and parents on their PF and parental responses to youth's pain. Correlational analyses showed significant negative associations between parental minimizing and monitoring behaviours, and parental PF. Mediation analyses did not support parental minimizing and monitoring as partial mediators of the relation between parental PF and youth quality of life. Overall, this study could inform parent-targeted interventions to improve outcomes for youth with chronic pain.

★ (17) The Role of Self-Determination in Healthy Eating Across Stages of Change

Curtis Gough, supervised by: Dr. Luc Pelletier. University of Ottawa

Studies on Self-Determination demonstrate that healthy eating correlates more with self-determined motivation (SDM) and intrinsic goals than with non-self-determined motivation (NSDM) and extrinsic goals. To understand how

this relates to change, research is examining the roles motivation and goal pursuit play across stages of dietary change (detection, decision, implementation, maintenance, habit). This cross-sectional study examines the differences between stages to determine if SDM and intrinsic goals increase and NSDM and extrinsic goals decrease across stages. Female university students (N=727) at different stages reported on their eating behaviour, dietary goals, and their SDM and NSDM for eating regulation. MANOVA and discriminant function analysis were used to examine and describe the differences between stages. Results revealed that eating behaviour, motivation, and goal content discriminated between stages and that healthy eating, self-determination, and intrinsic goal pursuit significantly increase across stages. Thus, SDM and intrinsic goals are important factors underlying stages of dietary change.

★ (18) A Study of Planning Ability, Emotion Regulation, and Academic Procrastination

Melissa Flatla, supervised by: Dr. Timothy A. Pychyl. Carleton University

Procrastination, or the voluntary delay in beginning or completing a task despite knowing one will be worse off for the delay, can lead to significant performance impairments as well as negative effects on well-being and health. Self-report questionnaires were completed by 119 undergraduate students (77.3% female) including the Barkley Deficits in Executive Functioning Scale (BDEFS), the Multifaceted Measure of Academic Procrastination (MMAP), and the Difficulties in Emotion Regulation Scale (DERS) in order to investigate the relations between emotion regulation, executive function, and procrastination. All variables were significantly correlated with procrastination, but those exhibiting the strongest relations with procrastination were: self-motivation, self-management to time, impulse control difficulties, and limited access to emotion regulation strategies. Findings suggest that individuals who score lower on measures of impaired self-regulation abilities report more frequent and intense problems with academic procrastination. Further research investigating specific areas of dysregulation, most likely to affect delay, is recommended.

★ (19) The impact of poly-victimization on maladaptive outcomes in a sample of serious juvenile offenders: A moderated mediation model

Jennifer Gould, supervised by: Dr. David Day, Jessica Sutherland. Ryerson University

Justice-involved youth who are exposed to multiple forms of victimization (i.e. poly-victimization) in childhood and adolescence experience worse outcomes than those exposed to single acts of violence. The present study used moderated mediation to examine the influence of residential mobility (as a mediator) and psychosocial maturity (as a moderator) on the relationship between poly-victimization and alcohol consumption at 12-month follow-up. Participants were 1354 male and female justice-involved adolescents, aged 14-17 years. Results were consistent with the proposed model in that high residential mobility mediated the relationship between experiences of poly-victimization and alcohol use for participants with low psychosocial maturity, but not when psychosocial maturity was moderate or high. Approximately 15% of the variance in alcohol usage at 12-months was accounted for by the predictors. These findings suggest the relationship between poly-victimization, residential mobility and alcohol use may be more complex than previously considered. Implications and future research propositions are discussed.

★ (20) Understanding the Dark Tetrad Traits using Revised Reinforcement Sensitivity Theory

Theory

Shahrukh Towheed, supervised by: Dr. Ronald R. Holden. Queen's University

The Dark Tetrad personality traits (Machiavellianism, narcissism, psychopathy, and everyday sadism) have fascinated researchers and clinicians due to their adaptive yet socially aversive qualities. However, little is known about the biological underpinnings of these traits. This research explored the relationship between the Dark Tetrad and three hypothetical brain-behaviour systems from Revised Reinforcement Sensitivity Theory (R-RST). One hundred and seventy-eight undergraduates at a Canadian university completed self-report measures of the dark traits and the R-RST systems. Analyses showed that each member of the tetrad was independently and uniquely associated with the R-RST systems. Our results suggest that R-RST may be a useful framework for understanding the Dark Tetrad traits. Our results also support previous evidence of a relationship between neurobiology and the dark personality. Overall, findings may provide deeper insight into the biological underpinnings of the dark personality, which may find relevance in academic, clinical, and forensic settings.

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