



The Psychology Students' Association of UBC X Psi Chi
2022-2023 organizes:

25th Annual
Psychology
Undergraduate
Research
Conference

March 31st - April 1st , 2023

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Land Acknowledgement

We would like to acknowledge that UBC's Vancouver Point Grey campus, where we are gathered today for the 25th Psychology Undergraduate Research Conference (PURC), is situated on the traditional, ancestral, and unceded territories of the Musqueam people.

As we take a moment to reflect on the land we occupy, we recognize the deep history and ongoing presence of Indigenous peoples in this region, and that we are uninvited guests on their land.

We want to acknowledge the rich cultures, traditions, and knowledge that the Musqueam have developed and maintained since time immemorial. We also acknowledge the ongoing and systemic injustices that Indigenous peoples continue to face, including the legacy of residential schools, forced displacement, and cultural erasure as a result of Canada's ongoing colonialism.

As we come together for this conference, we commit to learning from and supporting Indigenous knowledge, perspectives, and voices. We recognize that the contributions of Indigenous peoples have enriched and continue to enrich our society, and we are committed to contributing to reconciliation efforts as a group and as individuals by working with Indigenous students to enhance Indigenous representation in psychology.

Let us take a moment to honour and show respect to the land, the water, and the people, whose traditional territory we are privileged to occupy. We also encourage all settlers attending PURC to consider what actions they can take to contribute to meaningful reconciliation.

Greetings from PSA

Dear Presenters, Faculty, Alumni, Students and Guests,

Welcome to Psychology Undergraduate Research Conference. This conference is an important tradition of the Psychology community at UBC. For 25 years now, it has provided a professional environment for undergraduate researchers, a place to showcase their research, gain experience in conference presentations and contribute to the psychology sciences.

The work that you will see at this conference is the culmination of the hard work and dedication of these students in furthering our knowledge of the many areas of Psychology, including but not limited to, the Faculty of Arts and Faculty of Sciences at UBC.

This event would not have been possible without the generous support of the UBC Psychology Department and the Graduate Students Council. We are honored to have Dr. Luke Clark as our keynote speaker this year, and appreciate the time that he has given to support our event. We would also like to thank Dr. Benjamin Cheung, the faculty advisor of the Psychology Students' Association of UBC for offering us his continuous support, time and guidance in organizing today's event.

It has been a pleasure planning this enriching and interactive event. We hope that this conference will contribute to the academic experience of those involved, and will inspire everyone here today. We wish you all the best in your future endeavors.

Best Regards,

Psychology Students' Association Academics Committee team

Greetings from Psi Chi

Dear Presenters, Faculty, and Attendees of PURC,

Welcome to the 2023 Psychology Undergraduate Research Conference! Over the past 25 years, PURC has been an incredible opportunity for members and supporters of the UBC Psychology, Behavioral Neuroscience, and Cognitive Systems communities to come together and engage with the valuable research developed by the same.

Over the course of the event, we invite you to celebrate the dedication of your peers and connect with your fellow researchers. It is this work of our students and faculty that furthers the science of psychology, deepening our knowledge and broadening horizons for future inquiry.

We at the UBC Chapter of Psi Chi are incredibly honored to be co-hosting PURC with the Psychology Student's Association (PSA) this year. We thank PSA representatives Jimmy Chokmeesuk and Sneha Beniwal for their collaborative spirit and Dr. Catherine Rawn—Psi Chi's faculty advisor—for her guidance and support in coordinating this partnership.

Thank you all for joining us in this celebration of curiosity and learning in Psychology; may events such as these continue to inspire and invigorate your passions for our science.

Best wishes,

UBC's Chapter of Psi Chi: The International Honor Society in Psychology

Program Schedule:

Day 1

4:00 - 4:30 PM - Registration For All Sections at Earth Sciences Building

4:30 - 5:00 PM - Opening keynote: Dr. Luke Clark at ESB 1012

5:00 - 6:45 PM - Oral Presentations (Oral Group 1)

- 1. 5:00-5:15 PM** - Mike Mask
- 2. 5:15-5:30 PM** - Isaaca Wang
- 3. 5:30-5:45 PM** - Charul Maheshka
- 4. 5:45-6:00 PM** - Sarah Wissmann
- 5. 6:00-6:15 PM** - Maya Thulin
- 6. 6:15-6:30 PM** - Keya Malhotra
- 7. 6:30-6:45 PM** - Olivia Huntsman

6:45 PM onwards - Dinner

6:45 - 7:45 PM - Poster Presentations (Poster Group 1)

1. Amna Hussain
2. Aster Huang
3. Billy Lam
4. Cassidy Cardle
5. Olive Huang
6. Chastity Leong Ka See
7. Ella Davidson
8. Laura Joyce
9. Liam Gorsuch
10. Lianjie (Marc) Shi
11. Liz Kalenteridisi
12. Matthew Tsui
13. Paul Weston
14. Sarah Azad Manjiri
15. Velika Kristianto
16. Bryn Spiller-Tisserand
17. Carmynn Skalnik
18. Claudia Fu
19. Daria Hammond
20. Elena Zettelmeyer
21. Gian Hermosura
22. Jaimie Muller
23. Keaun Kazemi
24. Mina Han

7:45 - 8:45 PM - Poster Presentations (Poster Group 2)

1. Moha Chaturvedi
2. Tania Li
3. Anna Riminchan
4. Carling Bauer
5. Nina Andres and Victor Platzer

6. Emilie McGuire
7. Leela Moza
8. Max Hemmerich
9. Cecilia Liu
10. Soo Bin Seo
11. Theodore Yu
12. Jiayi Li
13. Alia Mahrez
14. Nafisa Golwala, Misheel Altanbadral, Nate Antonio, Akanksha Gera, and Jiarui Miao
15. Drishti Datta, Manal Ahmed, Olivia Mo, Kaya Piekaar, Sam Scarrow and Tiffany Wang
16. Theekshitha Vadladi

Day 2

8:30 AM - 9:00 AM – Registration (Poster Group, Oral Group 2)

9:00 AM - 10:00 AM - Poster Presentations
(Poster Group 3)

1. Adelina Fedulina
2. Cal Rosete
3. Christiane Peretz
4. Claire Thomas
5. Gurpreet Kaur
6. Jeranuhi Alakhverdians
7. Joshua Costa
8. Luke Forrester
9. Mark Melo
10. Michelle Gitaari
11. Noor Ramadhan
12. Scott Weber
13. Si-ah Choi
14. Simon Sheppard
15. Stephanie Chen
16. Sushmita Mahadani
17. Alice Erchov
18. Deepika Goomany
19. Faith Vaughan
20. Fiona Guan
21. Isabel Wilson
22. Nicholas Latimer
23. Ningjing Sang
24. Isha Verma
25. Yenah Byun

11:00 - 1:45 PM - Oral Presentations (Oral Group 2)

1. **11:00-11:15 AM** - Anabelle McPherson
2. **11:15-11:30 AM** - Cameron Kelsey
3. **11:30-11:45 AM** - Fides Arguelles
4. **11:45-12:00 AM** - Radha Bazaz
5. **12:00-12:15 PM** - Amina Abdelbary
6. **12:15-12:30 PM** - Bon Cagas
7. **12:30-12:45 PM** - Olivia Huntsman
8. **12:45-1:00 PM** - Shahrazad Amin
9. **1:00-1:15 PM** - Skye Zheng
10. **1:15-1:30 PM** - Sabby Cabrera
11. **1:30-1:45 PM** - Ruoning Li

12:15 - 2:45 PM - Registration (Oral Group 3 & 4)

1:45 - 2:45 PM - Lunch Break

10:00 AM - 11:00 AM - Poster Presentations
(Poster Group 4)

1. Seph King
2. Wenjing Cao
3. Yu Xuan (Rita) Jin
4. Douglas Forrest
5. Erhan Qian
6. Hattie Zhang
7. Kimia Nouhi
8. Linda Wang
9. Tora Chen
10. Salina Edwards

2:45 - 4:45 PM - Oral Presentations (Oral Group 3)

1. **2:45-3:00 PM** - Anna Mazurenko
2. **3:00-3:15 PM** - Adam Chun
3. **3:15-3:30 PM** - David Manuel
4. **3:30-3:45 PM** - Ching Yan Lau
5. **3:45-4:00 PM** - (Shawn) Yan Hui Yee
6. **4:00-4:15 PM** - Polina Potiagalova
7. **4:15-4:30 PM** - Darryl Liu
8. **4:30-4:45 PM** - Valerie Teng

4:45-5:00 PM - Short Break

5:00 - 6:30 PM - Oral Presentations (Oral Group 3)

1. **5:00-5:15 PM** - Rachel Dunn
2. **5:15-5:30 PM** - Marie Campione
3. **5:30-5:45 PM** - Judith Dsouza
4. **5:45-6:00 PM** - Alexis Seppelt
5. **6:00-6:15 PM** - Andrea Camacho Garron
6. **6:15-6:30 PM** - Nicholas Latimer

6:30- 7:15 PM - Closing/Awards

Day 1 - Friday, April 1st 2022 Oral Presentation Descriptions

In the order of presentation

1. Presenter: Mike Mask

Supervisor(s): Dr. Steven Heine

Uncanny Emotions and Conspiratorial Thinking

The psychological literature lacks a generally-accepted theoretical model explaining conspiratorial thinking. We explore whether uncanny emotions can lead to greater endorsement of generic conspiracy beliefs.

2. Presenter: Isaaca Wang

Supervisor(s): Dr. Frances Chen and Yeeun Archer Lee

The Effect of Perceived Prosocial Impact on the Acts of Kindness Wellbeing Intervention

There is extensive evidence that prosocial behaviour increases happiness and wellbeing. Some possible mechanisms of this relationship have been examined, including the perceived prosocial impact (PPI) of the prosocial behaviour, with several studies showing that it is related to an immediate and temporary boost in emotional wellbeing. However, no research has yet examined the relationship between the PPI of kind acts performed over a sustained period of time and longer-term changes in emotional wellbeing. The current study uses a longitudinal daily-diary design to investigate whether PPI influences the subsequent emotional wellbeing of community adults in BC after performing kind acts regularly for two weeks. I expect those who report a higher average PPI to experience a greater increase in emotional wellbeing after the intervention. If so, this would suggest performing kind acts with higher PPI has a positive lasting effect on emotional well-being, thus highlighting the central role PPI plays in increasing happiness via prosocial behaviour.

3. Presenter: Charul Maheshka

Supervisor(s): Dr. Elizabeth Dunn

Does Gratitude Predict Prosocial Spending in the Real World?

Experiencing positive emotions like happiness and gratitude has long been theorized to broaden our possibilities for thought and action. These emotions don't just feel good, they can help us do good, by promoting prosocial behaviour. Yet, past research on the link between gratitude and generosity has been limited to low-stakes economic games in lab settings. In a one-of-a-kind study with a high stakes real-world setting, 200 individuals across 7 countries were unexpectedly given \$10,000 USD to spend as they liked within 3 months. We asked participants how they felt on receiving the money, and coded the responses. 16% of participants spontaneously reported gratitude. We then tracked how participants spent the money, and found that those who mentioned gratitude spent over \$500 more on others compared to people who did not. This suggests that spontaneous gratitude in response to a generous act can increase likelihood of prosocial behaviour.

4. Presenter: Maya Thulin

Supervisor(s): Dr. Erin Fitzpatrick and Samantha Dawson

A Dyadic Study of Body Image Self-Consciousness and Sexual Outcomes During the Transition to Parenthood

Couples often experience challenges to their sexual relationship during the transition to parenthood, including less frequent sexual activity, sexual dissatisfaction, and worries and concerns about their sex lives. One potential contributor to sexual problems may be feelings of insecurity about one's body during sexual activity (i.e., body image self-consciousness (BISC)). In a dyadic study of over 200 couples, we examined links between an individuals' own BISC with their own and their partners' sexual outcomes at 20- and 32-weeks gestation, and 3-months postpartum. Using the Actor-Partner Interdependence Model, we found that when birthing parents reported higher levels of BISC at all time points, this was linked with the couples' lower sexual frequency, and their own lower sexual satisfaction and greater sexual distress. When non-birthing partners reported higher BISC at all timepoints, this was associated with their own greater sexual distress and their partners' lower sexual satisfaction (at 32-weeks only).

5. Presenter: Sarah Wissmann

Supervisor(s): Dr. Kiley Hamlin

Thinking in the Box: Infants' Neural Processing of Helping and Hindering Scenarios

Morality relies on a foundation of social understanding. Preverbal infants prefer prosocial characters over antisocial ones, suggesting that they are capable of making sociomoral evaluations. This study sought to explore the neural mechanisms underlying this preference to investigate infants' capacities for social understanding, and ultimately, morality. Using electroencephalography (EEG), we investigated the neural processes of 6- and 12-month-old infants while they observed a helping and hindering scenario, which featured a protagonist that is helped by a prosocial character or hindered by an antisocial one. To date, only a single helping-hindering scenario has been used to investigate infants' processing of prosocial and antisocial scenarios using EEG. In this study, we introduced a novel helping and hindering scenario called the box show. We predicted that motivational and social processing are involved in infants' sociomoral responses during the box show. Data analysis is ongoing.

6. Presenter: Keya Malhotra

Supervisor(s): Dr. Frances Chen and Bitu Zareian

Oral contraception and adversity: Associative Risk of Depressive Symptoms

Hormonal contraception is used worldwide to alleviate menstrual pain, acne, heavy bleeding, and avoid unintended pregnancies. Evidence points to adverse mood effects of hormonal contraceptives, however the impact of age of the first hormonal contraceptive use is in need of further investigation. The purpose of this study was to assess the effect of hormonal contraceptive use on the level of depressive symptoms and presence of current suicidal ideation. These associations were assessed in a sample of adult women with different histories of contraceptive use (current use, never use, past use). We will use One-Way ANOVA to assess the effect of hormonal contraceptive use history on the level of depressive symptoms. This study will allow us to clarify whether age of first hormonal

contraceptive use, as well as current hormonal contraceptive use, may be associated with increased risk of depressive symptoms. This study highlights the importance of attending to women's mental health before, during, and after use of hormonal contraceptives.

7. Presenter: Olivia Huntsman

Supervisor(s): Dr. Kiley Hamlin and Raechel Drew

Factors Associated with Biocentric Reasoning in Preschoolers

Biocentric reasoning, equating harm to nature and humans, emerges in preschoolers and is related to eco-friendly behaviors in adulthood (Bamberg & Möser, 2007; Hahn & Garrett, 2017); however, it is unclear what factors facilitate its' development. Here, we assess if preschoolers' biocentric reasoning – responding to stories/pictures involving harm to nature (stomping flowers/kicking squirrel) and humans (excluding/shoving others) with similar ratings of severity ('badness' – Smetana et al., 2012) is associated with their connectedness to nature (CNIPPI) (Sobko et al., 2018) and exposure to nature (parent-reported) (Holland et al., 2021) and parents' self-reported biocentric reasoning and engagement in pro-environmental behaviors (EAI) (Milfont & Duckitt, 2010). Data collection is ongoing (target N = x); pilot data indicates that biocentric reasoning is not associated with the factors examined. Thus, parents' values and childrens' experiences may not be related to its development.

Day 1 - Friday, April 1st 2022 Poster Presentation Descriptions (Group 1)

1. Sex Matters: Understanding the influence of sex and APOE genotype on hippocampal plasticity and cognition

Presenter: Amna Hussain

Supervisor(s): Dr. Liisa Galea

We study whether cognitive and neurogenesis decline in the hippocampus are differently exacerbated by the APOE4 gene and sex, and whether the inhibition of the complement system can potentially prevent the degradation of neurogenesis and cognition which is often seen with the onset of Alzheimer's Disease (AD). Two of the major risk factors for AD are female sex and possession of at least one copy of the APOE4 allele, yet further research on sex differences are often overlooked, including with the role that genetic differences plays. Studies suggest neurogenesis is mediated by the complement system and its activation inhibits neurogenesis. We examine whether administering a Neutrophil Inhibitory Factor (NIF) which targets C3 complement proteins prevents neurogenesis decline, and ultimately cognition degradation. We used a mouse model consisting of male and females who either have an APOE4 allele or an APOE3 allele, and are administered either NIF or a phosphate base saline (PBS) vehicle, and then completed a pattern separation task to measure cognition. Ultimately we found that female mice with the APOE4 allele showed significantly greater reduction in cognition compared to males and females with the APOE3 allele, and that females overall showed worse cognition than males. However, we found a significant positive and moderate correlation between NIF and cognition scores, which were similar for both sexes, and alleles. We concluded that the APOE4 allele and female sex are risk factors for cognitive decline which supports the existing body of research. Additionally we found the inhibition of the complement system, specifically through C3 proteins, may prevent cognitive decline in both male and female

rodents with both the APOE3 and APOE4 alleles.

2. The Social Transition: Friendship Experiences of Early Entrants to University

Presenter: Aster Huang

Supervisor(s): Dr. C. Owen Lo

Making friendships in university is crucial for social adjustment and well-being, but may be more difficult for certain populations. Gifted individuals have unique socio-emotional profiles; those who enter university early also have to make friends with peers years older than them. Thus, early entrance programs (EEPs) are controversial despite extensive research finding that early entrance leads to healthy social relationships for most. In the present study, I interviewed recent alumni from Canada's only EEP, the University Transition Program, about their friendship experiences in university and how their identity as a gifted early entrant impacted their friendships. This study's results may inform UTP's continued program development, as well as gifted programming and policymaking worldwide.

3. The effect of the maker's identity and intention on artifact evaluation

Presenter: Billy Lam

Supervisor(s): Dr. Geoffrey Hall

People evaluate original artifacts and duplicates based on their authenticity. Prior work has manipulated authenticity via maker identity, but the effect of maker intention on evaluations is unclear. Undergraduates (N = 360) evaluated pairs of identical manufactured products or works of art. Each pair consisted of an original artifact and a duplicate whose maker's identity and intent to copy the original were manipulated. Participants stated that they liked and would pay more for the original artifact than the duplicate when the duplicate had a different maker who intended to copy the original, suggesting that adults are concerned with maker identity and intention when evaluating artifacts.

4. Addressing Shared Mechanisms of Fatigue and Loneliness using an Acts of Kindness Intervention

Presenter: Cassidy Cardle

Supervisor(s): Dr. Frances Chen and Yeeun Lee

Fatigue is an extremely common symptom that causes both psychological and physical damage in both clinical and healthy populations. Research has indicated that common responses to fatigue, including excessive rest and social withdrawal, perpetuate fatigue symptoms by heightening feelings of loneliness. Research has emphasized a need for interventions that target beyond the physical impacts of fatigue. The current study explored the effects of an acts-of-kindness intervention that encourages positive social interaction on decreasing fatigue symptoms. A total of 200 BC residents completed either a two-week acts-of-kindness intervention or a two-week active control intervention. We expect participants in the acts-of-kindness condition to report decreased fatigue symptoms after taking part in the two-week kindness intervention. These findings would suggest that an acts-of-kindness intervention is an effective treatment for improving fatigue in healthy populations and provides evidence for future research on psychosocial interventions for fatigue.

5. Associations between Daily Coping Efficacy and Evening Negative Affect

Presenter: Olive Huang

Supervisor(s): Dr. Nancy Sin and Nicole Stuart

Baseline coping efficacy (i.e., the perception of how well one coped) had been linked to more regular daily stress responses, but it is unknown how daily coping efficacy may predict negative affect (NA). We examined the within-persons association between daily coping efficacy and evening NA in 229 community adults. Participants completed 4 surveys per day for 14 days about coping efficacy and NA. Daily coping efficacy predicted evening NA, such that individuals reported lower evening NA on days with higher coping efficacy than their average. Findings highlight the importance of coping efficacy in daily wellbeing. Future work should assess specific coping responses, alongside coping efficacy.

6. Shifting the Narrative: A Novel Intervention to Increase Climate Action

Presenter: Chastity Leong Ka See

Supervisor(s): Dr. Jiaying Zhao

Literature has established a well-documented climate action attitude-action gap, and with climate change effects worsening, there is a need to increase individual climate action. Therefore, we explore if a novel intervention that uses happiness as a motivator for climate action can bridge the climate action attitude-action gap. Groups of five participants in the happy climate condition see a video and table on climate actions that increase happiness, while the control group did not see anything. After, both conditions will create a climate action plan to implement. Participants then rated their intent to perform their climate action(s) and expected happiness for their plan's action(s). Results showed that both conditions gave equal intentions and expected happiness ratings. We conclude that highlighting the happiness benefits rather than the sacrificial nature of climate action may not increase individual climate action.

7. The Mixed Motivation Task: A Validation Study

Presenter: Ella Davidson

Supervisor(s): Dr. Rebecca Todd and Jacqueline Lee

The Mixed Motivation Task is an uninstructed learning task that measures active avoidance, active reward-seeking, inhibitory avoidance, and inhibitory reward-seeking. This study assessed the construct validity of the Mixed Motivation Task to better characterize active and inhibitory approach-avoidance behaviours in anxiety and depression. Undergraduates (N = 288, Mage = 20.89) completed the Beck Anxiety Inventory, Beck Depression Inventory II, and Mixed Motivation Task. The concurrent and discriminant validity between the motivational trials and self-reported anxiety and depression scores will be analyzed. This study has potential implications for the utility of the Mixed Motivation Task.

8. Executive functioning in autistic youth: comparisons between informant-reported and performance-based measures

Presenter: Laura Joyce

Supervisor(s): Dr. Connor Kerns and Elise Ng-Cordell

Executive function (EF) challenges are speculated to contribute to heterogeneous clinical

outcomes in autism. However, there is debate over how EF should be measured. To clarify each measure's utility in research and clinical practice, this study examined the relationship between performance-based and informant-reported measures of EF in 67 autistic youth (Mage= 13.8 years; MIQ=94). Despite some overlap between measures of EF ($r = -.26 - -.38$, $p \leq .05$), overall results suggested differences in the measured constructs. Only informant-reported EF was significantly related to clinical outcomes (i.e. restricted/repetitive behaviours, adaptive functioning, & attentional challenges; $r = .29 - .55$, $p \leq .05$), indicating its potential advantages in capturing clinically relevant EF challenges in autistic youth.

9. The Role of CPTSD in Pre-Treatment Overdose Incidence Among Concurrent Disorders Inpatients

Presenter: Liam Gorsuch

Supervisor(s): Dr. Christian Schutz

Previous research on post-traumatic stress disorder (PTSD) and overdose incidence has established that PTSD frequently co-occurs with overdose. However, there is a lack of research on complex post-traumatic stress disorder (CPTSD) and overdose. CPTSD is a more severe form of PTSD, with worse treatment outcomes. Therefore, individuals with CPTSD may be more likely to overdose than those without CPTSD. The current study investigates the correlation between CPTSD and overdose among patients receiving concurrent substance use and psychiatric treatment, with an expected sample size of $n=40$. Participants complete three questionnaires to assess their lifetime number of overdose(s), severity of CPTSD symptomatology, and to collect demographic information. We expect to observe a greater number of overdoses among those who meet criteria for CPTSD than those who do not. This research will enhance our understanding of the interaction between CPTSD and overdose and will provide valuable insight into the understudied concurrent disorders population.

10. Chronotype's Effects on Health Across Countries

Presenter: Lianjie (Marc) Shi

Supervisor(s): Dr. Steven J. Heine

Chronotype refers to the time that people typically sleep during a 24-hour period. People with earlier chronotypes usually get up earlier and are more active in the morning than those with later chronotypes. Chronotype has been found to vary across countries, and research finds that within countries a later chronotype is correlated with worse health outcomes. This study examines chronotype's effect on people's physical and mental health levels across different countries. We recruited 5128 participants from 20 countries over six continents, with approximately 250 participants in each country. Participants completed the survey in a two-week window before and after the autumn equinox, reporting their chronotypes, mental health levels, physical health levels, and depression levels. We used multilevel modeling to study the effect of chronotype on people's health outcomes within and between countries. We found that within countries, people with chronotypes that are later than the corresponding country's average tend to have lower physical and mental health outcomes. However, the analysis of between-country effects did not show any relationship between chronotype and people's health outcomes. Our study's findings highlight the importance of cultural fit in the relationship between

chronotype and health level, demonstrating that people's chronotypes are most relevant for predicting people's health in comparison with their own countries' averages.

11. A Translational Positive Punishment Delay Discounting Task in Humans

Presenter: Liz Kalenteridis

Supervisor(s): Dr. Rebecca Todd

Extensive work has demonstrated the influence of temporal delays on decision-making and altered subjective valuations of outcomes in a phenomenon commonly referred to as delay discounting. While previous research has focused its investigations on the influence of rewards (e.g., monetary gains) and negative punishments (e.g., monetary losses) on delay discounting, there are seldom animal model studies pertaining to delay discounting of positive punishments which have yet to be translated for human research purposes. Therefore, the current translational study uses a positive punishment delay discounting task modified from a rodent task to provide evidence that humans discount positive punishments which can be described by a hyperbolic function. These findings suggest that positive punishments are influenced by temporal delays in a similar manner to negative punishments and rewards.

12. Reasoning about Structural Inequality in Childhood

Presenter: Matthew Tsui

Supervisor(s): Dr. Andrew Baron and Cameron Hall

Structural inequality occurs when social systems produce unequal outcomes between different groups of people. Previous research suggests children tend to attribute social inequalities to internalist rather than structural factors (Gelman, 2003; Peretz-Lange & Muentener, 2021) – a reasoning pattern associated with prejudice development (Rhodes & Mandalaywala, 2017). Across two studies, we investigated 3- to 8-year-olds' ability to make structural attributions for inequality. Study 1 investigated children's ability to endorse causal attributions and developed a novel measure to address concerns that children exhibit a "yes-bias" when endorsing explanations. Results indicate children can overcome this yes-bias and reliably display causal reasoning when using negative question response language. Then, utilizing this response language to assess structural reasoning, children in Study 2 rated attributions for the outcome of a structurally unfair game. Children were able to correctly attribute the discrepant outcome to structural factors. This suggests children can use structural reasoning to explain social disparities, which has important implications for reducing social biases.

13. Sports Betting Themes in Modern Canadian News Media

Presenter: Paul Weston

Supervisor(s): Dr. Luke Clark

When Canada legalized sports betting in June 2021, gambling companies were incentivized to increase positive sports betting news. Mass media can shape policy agenda, and current Canadian sports betting media trends were unanalyzed. We coded Canadian sports betting articles and compared the frequency of relevant themes, voices, and perspectives in Jan 2020–June 2021 and July 2021–Dec 2022. Expected results will show an increase of relevant articles between the two time periods, and more articles will frame increased regulation negatively rather than positively. Mapping Canada's

newspapers enable public health advocates to combat problematic sports betting trends moving forward.

14. Conscience in toddlerhood: The link between guilt and prosociality

Presenter: Sarah Azad Manjiri

Supervisor(s): Dr. Kiley Hamlin and Raechel Drew

Experiencing guilt versus shame is linked to reparative prosociality in toddlerhood (e.g. Drummond et al., 2017; Kolak & Volling, 2022); but, how a tendency to experience guilt or shame relates to other empathic and altruistic behaviours among toddlers remains relatively unknown. Here, we evaluate whether 29-month-olds' ($n=48$, $M_{age}=30.23$ months, $SD=0.64$) guilt- or shame-proneness (after breaking a toy; Barrett et al., 1993) is concurrently associated with comforting an 'injured' researcher (Zahn-Waxler et al., 1992) and sharing valuable belongings (Newton et al., 2016). Concurrent analyses unveiled that toddlers who exhibited guilt did not have higher comforting ($t(44.36)=0.14$, $p=.89$) or sharing ($t(44.963)=0.23$, $p=.82$) scores than toddlers who exhibited shame, suggesting that experiencing guilt/shame might not play a role in all the prosocial behaviours toddlers produce.

15. Novel Forms of Online Gambling: Cheering Behaviour on Gambling Streams within Twitch.tv

Presenter: Velika Kristianto

Supervisor(s): Dr. Luke Clark

Novel sources of exposure to gambling and viewing gambling activities are both cause for potential concern. Although research examining the overlap between video games and gambling activities are well established, there is growing concern that features on platforms for viewing gambling activity, which now includes Twitch.tv, are being used as alternative platforms of gambling. Abarbanel and Johnson (2020) highlighted how aspects of the chat function on Twitch could introduce novel gambling mechanics, focusing specifically on how certain bot commands facilitate in-game gambling. This thesis extended this finding through a survey study examining if the use of the cheer function alone was used as a similar gambling mechanism in a sample of gambling-stream viewers. Results for this thesis are pending, and analyses will test for correlations between (1) gambling stream viewership and cheering frequency/quantity, (2) how these results may differ/resemble patterns of cheering behaviour on non-gambling streams, (3) if problem gambling scores correlate with more 'intense' (higher frequencies and quantities) cheering behaviour, and (4) identify patterns regarding age, gender, and income in individuals who use the cheer function, should such patterns exist.

16. The Effect Of Participants' Previous Experience With Psychosocial Treatments On Their Choice Of Strategy

Presenter: Bryn Spiller-Tisserand

Supervisor(s): Dr. Amori Mikami and Sophie Smit

This study examines the relationship between 33 participants' previous experience with psychosocial treatments (PT) and what level strategy they chose as their homework while participating in the PFC+ behaviour parent training program, where they were required to select strategies to complete as homework. These strategies were separated into three

categories corresponding to difficulty, with more foundational strategies at level one and more complex strategies at level three. I examined if those choices between strategies were influenced by whether or not the participant had previous experience with PTs. The 21 participants who had previous experience with PTs ($M = 1.43$, $SD = 1.69$), compared to the 11 participants who had no previous experience in PTs ($M = 0.45$, $SD = 0.93$), were more likely to choose level three strategies, $t(30) = -2.1$, $p = .04$. There was no significant effect for level one strategies, $t(30) = -1.1$, $p = 0.29$, or level two strategies, $t(30) = -.37$, $p = 0.72$.

17. Directive and Non-Directive Behaviours in Caregivers During Infant Play

Presenter: Carmynn Skalnik

Supervisor(s): Dr. Lauren Emberson

Prior research reveals two distinct ways caregivers impact play: in leading, or being led by the child—known as directive and non-directive guidance respectively. This project seeks to discern the effect of caregivers' directiveness on infant engagement, as literature on this topic during the infant years is scarce. Eight mother-infant dyads (infant M age = 5.9 months) have been recorded while engaged in free-play sessions. We manually coded the mothers' directiveness and infants' engagement with toys. We found that all mothers alternated their level of directiveness during play. We will analyse if the prevalence and duration of infant object engagement differs based on directiveness.

18. Watching gambling streams predicts greater gambling intentions in non-gamblers

Presenter: Claudia Fu

Supervisor(s): Dr. Luke Clark and Raymond Wu

The popularity of gambling streams has proliferated on streaming platforms (e.g., Twitch, YouTube) in recent years, introducing many people to gambling content, including those that do not gamble. According to the Theory of Planned Behavior (TPB; Ajzen, 1991), a person's intention (i.e. to gamble) is determined by three factors: attitudes, subjective norms, and perceived behavioural control. Here, we examined the degree to which watching gambling streams is associated with intentions to gamble and these three precursors, among people without current gambling experience. Results show significant correlations between watching gambling streams and all TPB variables except subjective norms.

19. Optimism and depressive symptoms in an adult lifespan sample: Evaluating coping in daily life as a mechanism

Presenter: Daria Hammond

Supervisor(s): Dr. Nancy Sin and Patrick Klaiber

Dispositional optimism is considered a protective factor for mental health, but the mechanism behind this relationship is unclear. We examined whether coping responses to daily stressors mediate the relationship between dispositional optimism and changes in depressive symptoms. Optimism may impact the likelihood one employs various coping strategies when faced with daily stress, which may contribute to mental health differences. A community-based sample of British Columbia residents completed a baseline questionnaire measuring demographics, dispositional optimism, and depressive symptoms, followed by 2-week experience sampling period reporting stressors and coping

4x a day. Participants then completed a follow-up questionnaire measuring depressive symptoms. Dispositional optimism predicted reductions in depressive symptoms from baseline to follow-up, but no coping strategies mediated this link. Our study confirms the protective role of optimism on depressive symptoms but research on other possible mechanisms such as coping efficacy is needed.

20. Exploring Autobiographical Memories of First-time Sexual Experiences

Presenter: Elena Zettelmeyeri

Supervisor(s): Dr. Samantha Dawson and Dr. Daniela Palombo

While first sexual experiences are recognized as one of the most significant life events, we do not know if these experiences are remembered differently than other experiences. This study explores whether memories of first sexual experiences contain more episodic details (i.e., details that are specific in time and place to that experience) compared to other memories. Participants were asked to provide written autobiographical accounts of three events: first sex, most recent sex, and a neutral event around the same time as the first sexual experience. We will use natural language processing to identify the number of episodic details in each memory and will then compare these across the events. We hypothesize that memories of first sexual experiences will contain a greater number of episodic details compared to the other two events. The findings will elucidate whether first sexual experiences are remembered differently with respect to episodic details.

21. The Role of Perceived Stress in the Relationship between OCD Symptoms and Rumination

Presenter: Gian Hermosura

Supervisor(s): Dr. Joelle LeMoult

Perceived stress has been found to exacerbate OCD symptoms and vice versa. Increased perceived stress has also been linked to high levels of rumination. Thus, a possible factor in the relationship between OCD symptoms and rumination is perceived stress. No study to our knowledge has investigated the underlying mechanisms and factors that might explain how OCD symptoms and rumination influence each other, beyond a simple correlation. The present longitudinal study has four hypotheses: 1) Perceived stress moderates the relationship between OCD symptoms and rumination, 2) OCD symptoms are positively associated with rumination, 3) OCD symptom severity is higher during times of higher perceived stress, and 4) Ruminations are more frequent during times of higher perceived stress. 300 undergraduate students will be recruited from the University of British Columbia. At baseline, participants will complete questionnaires assessing OCD symptoms, rumination, and perceived stress. At 1-, 3-, and 6-month follow-ups, participants will be asked to retake the same questionnaires completed at baseline. Should the hypotheses be supported, the findings of this study have the potential to elucidate the mechanisms between OCD symptoms and rumination. Additionally, the results may encourage future research on strategies for relieving and preventing perceived stress for individuals with OCD and excessive rumination.

22. How does the Infant Brain Process Speech? An fNIRS Meta-analysis

Presenter: Jaimie Muller

Supervisor(s): Dr. Lauren Emberson and Dr. Aleksandra Dopierala

While it's well-established in adults that the frontal and temporal lobes of the left hemisphere activate while processing speech, it is unclear whether the left hemisphere is dominant for speech processing in infants. Some studies show that these regions in both hemispheres activate, while others demonstrate only the left. This meta-analysis – for the first time in the field – will examine studies employing functional near-infrared spectroscopy (fNIRS) neuroimaging to determine whether the frontal and temporal lobes of both hemispheres activate when infants process speech. fNIRS is a quiet, increasingly-used neuroimaging technique with high spatial resolution. Our ongoing study has screened papers in the UBC Library and PubMed databases, with inclusion criteria involving full-term (>37 weeks gestation), neurotypical infants aged 3-12 months presented with speech stimuli. We are now reviewing the findings of 28 selected papers. Upon completion, our results will synthesize, clarify, and inform the ongoing debate regarding language lateralization development.

23. "Influencing Our Movement Paths: An Examination of How Cognition and Mood Impact Out-Of-Home Mobility in Young Adults."

Presenter: Keaun Kazemi

Supervisor(s): Dr. Todd Handy

Both cognition and subjective-well being are important aspects linked to several areas within an individual's lifetime. One potentially being the impact they have on our out-of-home daily mobility. Previous literature has found that cognitive decline leads to reduced out-of-home mobility in older people, and that severity of symptoms in clinical populations influence "how" and "where" people travel. However, our study is focused on viewing such correlations within young adults. In this study, GPS coordinates regarding the participants out-of-home mobility will be collected via Google Maps for two weeks. The Mood Zoom questionnaire, along with PROMIS etc. are used to assess daily mood and cognition in young adults. We hypothesize that young adults with elevated moods and greater cognitive functioning will have higher amounts of out-of-home mobility in contrast to negative moods and lesser cognitive functioning. Exploration of individuals' mobility provides insight into issues of cognition and mood.

24. Adult Speakers' Perception of Japanese and English Phonetic Contrasts

Presenter: Mina Han and Victoria Spiterie

Supervisor(s): Dr. Sachiyo Kajikawa and Dr. Janet F. Werker

By age 1, listeners show better discrimination of native, and worse discrimination of non-native phonetic categories. The Japanese language contains single-double consonant contrasts, such as /pata/ and /patta/, which are not present in English, and the English language contains the /r/-/l/ contrast, which are not present in Japanese. It has not yet been clarified whether English speakers discriminate between the Japanese consonant contrasts or not. In this study we examined the ability of English-speaking and Japanese adults to perceive native and non-native phonetic contrasts, using reaction time and rate of correct responses as a measure. We found that although Japanese-speaking adults had difficulty distinguishing the English contrast, English-speaking adults were able to distinguish the Japanese contrast equally as well as the English contrast.

Day 1 - Friday, April 1st 2022 Poster Presentation Descriptions (Group 2)

1. Is Sleep Quality Associated With The Way You Cope?

Presenter: Moha Chaturvedi

Supervisor(s): Dr. Nancy Sin

This project explores whether poor sleep quality is associated with engaging in problem-focused or emotion-focused coping strategies. Data on sleep is collected through daily morning surveys on an app called Metricwire that prompt participants to assess the duration and quality of their sleep, as well as report if they experienced any interruptions in their sleep. Data on coping styles is collected through ecological momentary assessments 5 times per day. Participants fill these surveys out for fourteen days, as well as a baseline and follow-up surveys. Unlike previous studies, this project utilizes a large community sample with no known sleep disorders and examines night-to-night variability in sleep, as opposed to average sleep. Findings from this project will help shed further light on the mechanisms through which sleep is associated with well-being and coping with stress.

2. The Impact of Openness on Vaccine Hesitancy in COVID-19

Presenter: Tania Li

Supervisor(s): Dr. Friedrich Götz

As Covid-19 continues to incur enormous personal and societal costs, widespread vaccination against the virus remains the most effective strategy to end the pandemic. However, vaccine hesitancy is rampant and has been steadily rising for decades. Seeking to remedy this, personality psychologists have begun to explore psychological drivers of vaccine hesitancy, including the Big Five. Openness to Experience presents itself as a vexing case as previous attempts to study its association with vaccine hesitancy have yielded mixed findings. In this pre-registered study, we hypothesise that the impact of Openness to Experience on Vaccine Hesitancy depends on its interplay with other factors, namely conspiracy beliefs. To test this, we employ multiple regression and simple slopes moderation analyses to a nationally representative sample of 2,500 Italian citizens, collected in May 2021. Contrary to our original hypothesis (i.e., Openness will have a positive association with Vaccine Hesitancy at high – and a negative at low – levels of Conspiracy Beliefs) we find that high Openness diminishes the impact of Belief in Conspiracy Theories on Vaccine Hesitancy. Consistent with previous research, we propose that Openness serves as a buffer against extreme positions by allowing individuals to be exposed to a greater diversity of information.

3. Exploring Content and Quality of Manufacturer's Claims: An Investigation into Social Robots for Children

Presenter: Anna Riminchan

Supervisor(s): Dr. Julie Robillard

As the market for commercial children's social robots grows, manufacturers' claims around the functionality and outcomes of their products have the potential to impact consumer purchasing decisions and, in turn, children's mental and physical health. In this work, we qualitatively and quantitatively assess the content and scientific support for claims made on manufacturers' websites about social robots marketed towards children. A sample of 21 robot websites was obtained using location-independent keyword searches on Google,

Yahoo, and Bing from April to July 2021. All claims made on manufacturers' websites about robot functionality and outcomes (n = 653 statements) were subjected to content analysis, and the quality of evidence for these claims was evaluated using a validated quality evaluation tool. Social robot manufacturers made clear claims about the impact of their products in the areas of interaction, education, emotion, and adaptivity. Claims tended to focus on the child rather than the parent or other users. Robots were primarily described in the context of interactive, educational, and emotional uses, rather than being for health, safety, or security. The quality of the information used to support these claims was highly variable and at times potentially misleading. Many websites used language implying that robots had interior thoughts and experiences; for example, that they would love the child. This study provides insight into the content and quality of parent-facing manufacturer claims regarding commercial social robots for children.

4. Social Media "Friends" or Foes: How Gender, Website of Choice, and Time Spent Online Can Impact Cyberbullying Perpetration

Presenter: Carling Bauer

Supervisor(s): Dr. Amori Mikami and Vasileia Karasavva

Despite growing concern over the rates and severe implications of cyberbullying, the potential factors that predict instances of cyberbullying remain unclear. Our research investigates how gender, website of choice, and time spent online can impact cyberbullying perpetration. We hypothesized that men, those who spend more time online, and websites that promote anonymity, would be linked with a higher incidence of cyberbullying perpetration. Data was collected online where participants (N = 1118; 73.8% women) responded to surveys regarding their social media usage and experiences with cyberbullying. A binary logistic regression supported our hypotheses and showed that being a man and spending more time online were associated with a higher likelihood of having engaged in cyberbullying perpetration. However, website of choice was not a significant predictor of cyberbullying perpetration. This research provides insight into the variables that could facilitate cyberbullying. Therefore, this study can inform future cyberbullying interventions to ensure safer internet usage amongst vulnerable users.

5. When a Moment Lasts Forever: The Influence of Emotion on Retrieving Episodic Memories.

Presenter: Nina Mari Andres and Victor Platzner

Supervisor(s): Dr. Peter Graf and Nada Alaifan

Emotional events (e.g., a car accident, a wedding celebration) are remembered better than neutral events (e.g., taking a shower). The evidence for this claim is mainly available for autobiographical memory, but the evidence of this enhancement in episodic memory remains unclear. In this study, participants were presented with a series of positive, negative and neutral images on a computer screen and asked to rate their initial emotional reaction to the images on a 6-point scale. After a brief delay, they were prompted to orally recall to the best of their ability the previously presented images in much detail as possible. Their responses were transcribed and scored to assess memory for gist and details. We hypothesize that memory performance would be higher for emotional pictures compared to neutral ones and that emotional images would be recalled with more details. We also hypothesize that there would be sex differences in emotional memory.

6. Determinants of Depression Among Individuals with Inflammatory Arthritis (IA)

Presenter: Emilie McGuire

Supervisor(s): Dr. Diane Lacaille

Depression risk doubles among Canadian adults with arthritis. This cross-sectional study used baseline questionnaire data from an IA employment intervention's randomized controlled trial. Participants were recruited in Canada through rheumatologist practices, arthritis organizations, and health benefit plans (07/2013-04/2017). Potential determinants included sociodemographic, health and work-related variables. In the final multivariable-linear regression analyses (N=564) (with forward variable selection based on adjusted R-squared), factors associated with depression included: insomnia, job strain, number of limiting comorbidities, fatigue, job dissatisfaction (explaining 55.50% of depression variance). Insomnia explained 17.66% of the variance after controlling for other variables. Discussing insomnia, job strain, comorbidities, fatigue, and job dissatisfaction may benefit patients.

7. Childhood Trauma and Substance Abuse Disorder

Presenter: Leela Moza

Supervisor(s): Dr. Thomas Chao

Substance Use Disorder (SUD), is a complicated mental illness that often leads to comorbidity. Treatment of SUD, hence, can be difficult due to the presence of multiple disorders. There is a need to identify and investigate the early predictors of drug abuse and how they can impact treatment. One such predictor, according to prior research, is childhood trauma. This study will investigate the presence and severity of childhood trauma symptoms and its subtypes among patients with co-occurring mental health and substance use disorders. We hypothesize that (1) patients with childhood trauma will have an increased severity of SUD and (2) also report a younger age of first overdose. The rate of drug toxicity deaths has been increasing steadily since January 2015, with a peak in mortality in December 2021 (Overdose Response Indicator, 2022). Understanding early predictors such as childhood trauma could help with early intervention, reduced relapse rates and better treatment models that focus on comorbidity. This study focuses on approximately 200 participants also enrolled in the broader ROAR Canada study. A simple linear regression will be used to compare the presence of childhood trauma to the severity of SUD as well as age of first-time overdose. This study aims to fill the knowledge gap regarding how childhood trauma affects the severity of SUD in individuals with co-occurring mental health and substance use disorders; based on the level of CTE, future treatment options for SUD could be personalized.

8. Validation of the Maudsley Addiction Profile as a Measure of Symptom Severity in a Concurrent Disorder Population

Presenter: Max Hemmerich

Supervisor(s): Dr. Christian Schütz

The Maudsley Addiction Profile is often used in research on concurrent disorders (comorbid mental health and substance use disorders). However, its Health Symptoms Scale (MAP-HSS) has not been validated and psychological and somatic mental health symptom severity scores from this measure are rarely reported. In this study, the concurrent validity of the MAP-HSS was assessed via correlations with the Symptom

Checklist-90-Revised. The MAP-HSS had acceptable concurrent validity (ρ 's = 0.717-0.781, p 's ≤ 0.001) and internal consistency ($\alpha = 0.934$). The validity of the MAP-HSS supports its utility as a measure of overall psychological wellbeing in research with concurrent disorder populations.

9. Perceived Coping Efficacy and Cortisol Dynamic Range: Associations Between Coping and Physiological Stress

Presenter: Cecilia Liu

Supervisor(s): Dr. Nancy Sin

Confidence in one's ability to cope with stress is linked to decreased subjective stress. However, little is known about how coping relates to biomarkers of stress, such as cortisol. Thus, this study examined the relationship between perceived coping efficacy and cortisol dynamic range (CDR). The data was collected from 250 community-dwelling adults in British Columbia who filled out surveys about their daily experiences and provided saliva samples to measure cortisol. Contrary to our predictions, perceived coping efficacy and variability were not significantly associated with CDR. These findings revealed that successful coping may not be related to baseline stress reactivity. Future studies should clarify this by examining other stress measures to gain insight into the physiological effects of coping.

10. Investigating Experiences of Harm from Recalled Incidences of Bias

Presenter: Soo Bin Seo

Supervisor(s): Dr. Toni Schmander and Carmelle Bareket-Shavit

According to the bias typology model, biases can be defined as a function of the agent's egalitarian motivation, awareness of bias, and their efforts to regulate their bias. These dimensions contribute to distinct formations of behaviour, which can be classified as unbiased, implicitly biased, or intentionally biased. This study aims to investigate how people experience bias in their real lives by measuring their experiences of harm from past instances of social bias. We conducted an online survey in which participants were asked to recall past experiences of bias that were centered on a feature of their social identity (i.e., their gender, race, ethnicity, or sexual orientation) and to describe them in a series of open-ended and close-ended responses. Participants then described their experiences of harm from their experiences of bias by completing measures of pain, exclusion and invisibility, and negative emotional responses. We are currently undertaking a qualitative content analysis of these responses to study how participants' perceptions of harm may be related to the proximity and nature of their relationship to the agent of bias.

11. Creating a Database of Affective Stimuli for Virtual Reality Research

Presenter: Theodore Yu

Supervisor(s): Dr. Daniela Palombo

The use of virtual reality (VR) is becoming increasingly prominent in emotional memory research. While several databases for emotional stimuli exist for traditional computer-based studies, no standardized database exists for emotional stimuli to be used in VR. Seeking to address this gap, we have developed a novel pipeline for creating high quality 3D models for use in VR environments. Using a combination of 360-degree photography, photogrammetry, and 3D editing we are creating high quality virtual stimuli of emotionally salient objects. We plan to run a follow up study to assess the emotional

valence and intensity of our stimuli. Ultimately, we intend to release a publicly available repository to be used by VR researchers at large.

12. Engagement of Volunteering Activities in Canadian Individuals with Disabilities

Presenter: Jiayi Li

Supervisor(s): Dr. Frances Chen

Volunteering has been associated with favourable well-being outcomes. However, there is less research on equitable access to volunteering, particularly for populations with disabilities. Previous research demonstrates that individuals with disabilities are less likely to volunteer, but after volunteering, show improvements in overall social well-being. In this study, we aimed to document volunteering in populations with disabilities to better understand the accessibility and preferred types of volunteering. Data was from the Canadian Social Connection Survey (CSCS), a serial cross-sectional survey on the social health and well-being of Canadians (N = 1,093). For participants with four disabilities (mental health, physical mobility, chronic pain, and chronic illness), as compared to those without these disabilities, we examined the likelihood of engaging in volunteering and the types of volunteering (e.g. administrative work, health-related, physical labour) they engaged in. We expect that populations with different disabilities engage differently in frequency and type of volunteering and seek to use these findings to better understand volunteering in this population, subsequently encouraging inclusive volunteering.

13. Exploring Speech Sound Discrimination Through Perceptual Learning Mechanisms

Presenters: Alia Mahrez and Sherouk Shehata

Supervisor(s): Dr. Janet F. Werker

Infants have the ability to discriminate non-native and native speech sounds during their earliest months of development. At 10 months, they improve at discriminating similar sounding native speech (e.g. ta vs ka), but diminish in discriminating similar sounding non-native speech. Acquired distinctiveness (AD) is a perceptual learning mechanism that boosts discrimination by pairing similar speech sounds with different objects. Acquired equivalence (AE) diminishes discrimination by pairing similar speech sounds with all objects. This study compares the efficiency of AD and AE in 90 English learning 6-and-12-months old monolingual infants. Using /ra/ vs. /la/ contrasts, we examine the infants' neural activity with electroencephalographs (EEG). If a time-sensitive window of 4-10 months really exists in perceptual development, AD and AE mechanisms will only have a significant effect in the younger age groups. The results of this study will extend our understanding of the underlying mechanisms of developmental language learning mechanisms.

14. Auditory Stimuli on Taste Perception

Presenters: Nafisa Golwala, Misheel Altanbadral, Nate Antonio, Akanksha Gera, and Jiarui Miao

Supervisor(s): Dr. Andrew Rivers

This study aimed to further research whether opposing auditory stimuli can affect gustatory food perception based on one's enjoyment of the sound. Our auditory source was operationalized through Apple's iPhone alarm options: the 'Silk' and 'Alarm' sound. Following the consumption of a plain cracker, while listening to one of the three sounds, PSYC 217 students were instructed to rate their hedonic ratings of both the food flavour

and their enjoyment of the sound on a Likert Scale. Participants liked the cracker more while listening to the 'Silk' stimulus than the 'Alarm' stimulus. Further, participants also enjoyed listening to the 'Silk' sound rather than the 'Alarm'. In conclusion, our findings demonstrate that there is a positive correlation between one's likeness of the auditory stimulus and the likeness of the food stimulus. Based on past research, this may be due to the emotions elicited from the sound played.

15. The Effects of Demeanour on Learning Outcomes

Presenters: Drishti Datta, Manal Ahmed, Olivia Mo, Kaya Piekaar, Sam Scarrow and Tiffany Wang

Supervisor(s): Dr. Mark Lam

Students often struggle with relearning previously taught concepts when preparing for exams because the lectures did not have a lasting impact. Previous studies have shown that an educator's demeanour can affect people's judgements about them but there has not been any investigations on how demeanour affects content retention. We therefore examined the extent to which an educator's demeanour has an effect on a student's learning outcomes. Participants were assigned to either the warm demeanour or cold demeanour condition where they watched videos of the same person talking about the same topic but in different demeanours and then completed a quiz on the subject as a test for content retention. Results showed that participants assigned to the warm condition scored better ($M=5$) than participants in the cold condition ($M=2.5$). This implies that students achieve better learning outcomes when the content is presented to them with a warm demeanour.

16. The Stability of Infants' Sociomoral Evaluations from Infancy to Toddlerhood

Presenter: Theekshitha Vadladi

Supervisor(s): Dr. Kiley Hamlin

Past work has shown that preverbal infants are capable of making a number of sociomoral evaluations. After watching puppet shows in which a nice puppet facilitates or a mean puppet hinders a protagonist from reaching various goals, infants reliably choose (through looking or reaching) the nice guy. (Hamlin et al., 2007; 2013; Hamlin & Wynn, 2011). However, the stability of infants' evaluations over time is unknown. Here, we examine whether 9-month-olds' ($n=31$, $M_{age}=9.92$; $SD=0.57$) manual reach for mean/nice puppets is related to their choice of mean/nice puppets at 23 months old ($M_{age}=24.07$; $SD=0.59$) when they are explicitly asked to reward/punish puppets. If choices are consistent across puppet shows, it provides further evidence that the roots of toddlers' sociomoral evaluations are in infancy. So far, preliminary data indicate that infants' preferences for mean/nice puppets were not consistent across visits.

Day 2 - Saturday, April 2nd 2022 Poster Presentation Descriptions (Group 3)

In the order of presentation

1. Help-seeking Related to Acculturation in University Students Experiencing Subclinical Symptoms of Mental Health Disorders.

Presenter: Adelina Fedulina

Supervisor(s): Dr. Kristen Hudec

Acculturation, the process of adjustment to the host culture upon migration, has been found to be the most challenging obstacle faced by international university students (Olivas & Li, 2006). Since higher rates of distress have been found to decrease help-seeking behaviour (Gorczynski & Sims-Schouten, 2022), we presumed that a relationship between acculturation and treatment-seeking exists but is yet to be investigated. We examined whether the level of acculturation could reliably predict help-seeking behaviour in university students experiencing subclinical symptoms of common mental health disorders (i.e., depression, anxiety, attention-deficit/hyperactivity disorder). In addition, we evaluated a model where the severity of distressing subclinical symptoms acts as a mediator of the relationship between the level of acculturation and help-seeking behaviour.

2. Guts, Sex, Brains: Characterising Sexual Behaviour in Inflammatory Bowel Disease (IBD)

Presenter: Cal Rosete

Supervisor(s): Dr. Annie Ciernia

Inflammatory bowel disease (IBD) causes many disturbances in overall health, wellness, and lifestyle. IBD is characterised by chronic inflammation and subsequent damage of the gastrointestinal tract; however, growing evidence suggests its symptoms are seldom confined to the gut. Previous literature demonstrates that gut health influences brain function and physiology, but fails to address its influence on mental health and behaviour. The current study aims to characterise gut-brain mechanisms governing sexual behaviour using a mouse model of IBD. Copulatory behaviour analysis revealed that simulated IBD caused a reduction in mate-seeking behaviours in males, unlike their healthy counterparts. To propose potential mechanisms, neural and endocrine symptomatology were evaluated. Based on prior research, we expect sexual deficiencies to be coupled with diminished microglial branching, atypically increased testosterone, and decreased estradiol concentrations. Given that Canada has one of the highest prevalence rates of IBD worldwide, identifying relevant psychological and sexual disruptions has meaningful implications for understanding how altered microbiota impacts brain health..

3. Cues to Wealth Influence Children's Intergroup Attitudes

Presenter: Christiane Peretz

Supervisor(s): Dr. Anthea Pun and Dr. Andrew Scott Baron

In many societies, wealthy individuals and groups often enjoy privileges and advantages that reinforce their high social status. Furthermore, research suggests children as young as 3-4 years are sensitive to wealth cues; cues subsequently influencing how children evaluate social groups (e.g., Mandalaywala et al., 2020; Horwitz et al., 2014). Our work aims to expand upon past research on developmental origins of cognitive wealth biases by

investigating whether 3–8-year-olds show implicit and explicit preference for wealthy novel groups. Further, we also intend to examine whether relative versus absolute wealth discrepancies differentially influence children's judgments. Implementing our novel Child Implicit Bias Test, we hypothesize that participants will be more likely to form positive explicit and implicit associations with the high-wealth group. Preliminary findings and implications will be presented.

4. The Dark Side of Body Positivity - does the body positivity movement incur cognitive and costs on women?

Presenter: Claire Thomas

Supervisor(s): Dr. Kristin Laurin

The body positivity movement has been challenging women to reject societal beauty standards and celebrate their bodies as beautiful in their current form - but at what cost? Increased focus on the body could create attentional demands that reallocate mental resources away from other activities. This study aimed to investigate whether exposure to body-positive related content caused poorer performance on cognitive tasks. After exposing participants to 1 of 3 conditions (body-positive content, body neutral content, or body-unrelated content), participants completed a working memory test and a GMAT math test. No significant effects were detected. Exploratory analyses have been conducted and opportunities for further research discussed.

5. Integration of the Vulvar Pain Assessment Questionnaire in a Tertiary Vulvar Pain Assessment Clinic

Presenter: Gurpreet Kaur

Supervisor(s): Dr. Katrina Bouchard and Dr. Lori Brotto

Vulvodynia is a chronic genital pain condition that affects 8-10% of people (Bergeron et al., 2020) and significantly impacts facets of well-being. To assist in the diagnosis and assessment of vulvodynia, the Vulvar Pain Assessment Questionnaire (VPAQ) was developed (Dargie, 2016). A recent study examined its clinical utility and usefulness in aiding treatment planning related to sexual outcomes (Brotto et al., 2022). This pilot study examines the integration of the VPAQ in a tertiary vulvar pain assessment (VPA) clinic to assess pain severity, cognitive/ emotional functioning, and life interference outcomes. Data were collected from 16 patients before the VPA clinic and six months later. Consistent with our hypothesis, Results showed that pain intensity and difficulties with cognitive/emotional and daily functioning declined from pre- to post-assessment. The VPAQ supports the assessment of vulvodynia in tertiary care.

6. An automated integrative complexity analysis of suicide posts on Reddit

Presenter: Jeranuhi Alakhverdians

Supervisor(s): Dr. Peter Suedfeld

Suicide is a serious, ongoing public health issue, and an increasing number of suicidal people are seeking help online (Grant et al., 2018). The complexity of suicidality necessitates examination of different and novel approaches that may assist with suicide prevention. Integrative Complexity (IC) is a measure of cognitive complexity that has predictive value (Suedfeld & Bluck, 1988) and has been used in behavioral interventions (Peracha et al., 2022; Putra et al., 2018). Research suggests that IC may be lower when

an individual is experiencing a threat stress response, wherein they appraise the situation as exceeding their resources (Andrews Fearon & Boyd-Macmillan, 2016). The current study collected data from the social media platform Reddit and utilized automated IC scoring (Conway et al., 2014) to compare IC scores of participants from three subreddit groups: r/SuicideWatch (n = 41), r/depression (n = 37), and r/Advice (n = 38). Although the study was exploratory, it was predicted that IC scores would be lower in the r/SuicideWatch group. However, an analysis of variance (ANOVA) indicated there was no significant difference in participants' IC scores between subreddit groups. The results do not provide support for an association between suicidality and IC with regards to online posts. It is possible that suicidal people who post online are not experiencing a threat stress response at all or that the reaction to the stress may be different than in non-suicidal people.

7. The Online Trier Social Stress Test: Studying Stress in the Digital Age

Presenter: Joshua Costa

Supervisor(s): Dr. Frances Chen and Bitia Zareian

The Trier Social Stress Test (TSST) is a reliable standardized protocol for inducing stress under laboratory conditions. Recently, online versions of the TSST have been developed for adolescents and adults (TSST-OL, Gunnar et al., 2021; TSST-OA; Meier et al., 2022) that produce cortisol and self-reported stress responses comparable to the lab-based version. The present study aimed to further validate the online TSST and assess whether standardizing additional factors, such as the familiarity of the interview room, would produce a more robust and reliable stress response than the previous online designs. A sample of healthy participants completed a refined online TSST and provided both cortisol and self-reported stress ratings before, during, and after the stressor. We hypothesize that the refined online TSST will trigger significant increases in stress, and that standardizing factors, including the saliency of the judges and the size of the participant's screen, will result in stronger stress responses.

8. The Lonely Heart: Associations between State Loneliness, Trait Loneliness, and Heart-rate variability

Presenter: Luke Forrester

Supervisor(s): Dr. Frances Chen and Charlotte Roddick

Recent increases in the prevalence and severity of loneliness worldwide has spurred an eruption of research on its physiological underpinnings, but investigations into the distinctions between state and trait loneliness remain limited. This study examines the differential effects of state and trait loneliness on high-frequency heart-rate variability (HRV) responses to cognitive demands. 156 healthy undergraduates attended laboratory sessions where they received a modified version of the UCLA Loneliness scale before completing both social and non-social cognitive tasks. Scores on state and trait loneliness scales will be used to predict HRV reactivity to both types of cognitive demands.

9. Neuropeptidergic Signaling Pathways Underlying Sensitization and Dishabituation in *C. elegans*

Presenter: Mark Melo

Supervisor(s): Dr. Catharine Rankin and Alex Yu

In non-associative learning, both sensitization and dishabituation cause a facilitation of

responding. Sensitization increases the response above the baseline after presentation of a novel and/or noxious stimulus, while dishabituation leads to a rapid recovery of a previously decremented response. Sensitization mechanisms are well-studied, but dishabituation research is rare. This discrepancy in understanding is partly due to the once-held belief that sensitization and dishabituation were the same process. However, mounting evidence suggests these processes are indeed dissociable. In the nematode *Caenorhabditis elegans* it has been hypothesized that sensitization and dishabituation recruit different neuropeptides. To test this hypothesis, a candidate gene approach was employed to select and test mutations in *C. elegans* neuropeptide genes that might underlie differences in sensitization and dishabituation. *C. elegans* is particularly amenable to studying behavioural genetics as its sequenced genome, connectome (map of neural connections) and availability of curated technologies allow for high-throughput analysis of specific mutations. In this study behavioural paradigms were employed to test effects of specific neuropeptide deletion mutations. It was found that a variety of neuropeptides specifically mediate different components of response facilitation in different non-associative learning paradigms. This research continues the search for cellular and molecular mechanisms underlying the unique processes of sensitization and dishabituation.

10. The Stability of Error Reactivity During a Cognitive Task

Presenter: Michelle Gitaari

Supervisor(s): Dr. Noah Silverberg

Functional cognitive disorder (FCD) is a psychological condition characterized by increased error reactivity (i.e., fight or flight response) while having their cognitive abilities tested. Error reactivity may be a useful biomarker for measuring response to treatment. However, it must be demonstrated reliable in a healthy population to determine if it is an appropriate measure. We hypothesize that electrodermal activity (EDA, i.e., the measure of sweat and fight or flight response) is stable during a cognitive task. Forty-five healthy undergraduate students will participate in two identical sessions set four to sixteen weeks apart. If stable, these results would indicate that error reactivity could be studied as an indicator of treatment outcome over varying treatment lengths in FCD.

11. The Influence of Psychedelic Use on Substance Abuse Severity

Presenter: Noor Ramadhan

Supervisor(s): Dr. Thomas Chao

Substance use disorders (SUD) have increased in prevalence rates in recent years, with an estimated 22% of Canadians meeting criteria for SUD during their lifetime. A recent growing body of literature has highlighted psychedelic-assisted therapy as the most promising avenue. This study compared substance use severity among adults reporting lifetime psychedelic drug use relative to those who have never used psychedelic drugs (controls) and investigated the relevance of self-reported intention of psychedelic drug use (e.g., self-improvement). 626 participants (109 psychedelic users and 517 non-psychedelic users) completed an online survey assessing demographics and substance use status and history. An analysis of covariance was done to examine the relationship between psychedelic use and substance use severity, controlling for childhood trauma. We found that a history of naturalistic psychedelic drug use was associated with greater severity of

current alcohol use and substance use patterns ($p < .001$), regardless of participant intentionality prior to their use of psychedelic drugs.

12. Identifying Targets for Reducing Habitual Behaviors Using Acetylcholine in Animal Models

Presenter: Scott Weber

Supervisor(s): Dr. Catharine Winstanley

Habits are entangled in various debilitating pathologies like Substance Use Disorder (SUD). By targeting habits through the dopamine (DA) neuromodulator acetylcholine (ACh), we identify new targets to reduce habitual behaviors in animal models. Goal-directed behaviors are mediated by the dorsomedial striatum (DMS). Once repeating behaviors become habitual, the dorsolateral striatum (DLS) takes over. The pedunculopontine nucleus (PPN) houses prominent ACh projection neurons that project directly to the DLS. We employed designer receptors exclusively activated by designer drugs (DREDDs) to inhibit the PPN. 128 rats were used in this study. Rats completed the cued rat gambling task (crGT), which has salient cues paired with choices. Poorer choices have more salient cues. If choices became more optimal, then habitual behavior had been perturbed. The dependent variable was percent choice of option and percent of premature responses. Our results show, through increasing optimal crGT selection, the potential of targeting ACh for decreasing habitual behaviors, and as a pharmacological treatment.

13. Levels of SUSD4 and SEZ6 mRNA in Post Mortem Brain Tissue of Patients with Schizophrenia and Bipolar Disorder

Presenter: Si-ah Choi

Supervisor(s): Dr. Clare L Beasley

Schizophrenia (SCZ) and bipolar disorder (BD) are debilitating psychiatric illnesses. While research has uncovered some biological mechanisms that underlie these disorders, further studies are needed to deepen our understanding. There have been recent investigations of the complement immune system in the central nervous system, with growing interest in relationships between psychiatric disorders and complement system regulator proteins, such as Sushi Domain Containing 4 (SUSD4) and Seizure Related 6 (SEZ6). In this study, mRNA levels of SUSD4 and SEZ6 complement system inhibitors were measured using qPCR in post-mortem human brain tissue of patients with SCZ, BD, or neither. Independent t-tests have revealed that there is a significantly lower level of SEZ6 mRNA in SCZ brain tissue compared to individuals with neither disorder ($p < 0.05$). Further research is required to confirm a direct relationship between SEZ6 and SCZ, as well as whether SEZ6 levels can be manipulated to treat SCZ.

14. Unwanted Interventions in Hoarded Homes

Presenter: Simon Sheppard

Supervisor(s): Dr. Sheila Woody

In cases of hoarding, excessive clutter presents health and safety risks. Due to these risks, friends, family, and service providers often try to intervene by removing possessions from the home. Although sometimes necessary –to prevent eviction for example, these interventions are not always consensual and can have negative consequences, such as distress or reluctance to accept future help. Despite the frequency of such interventions, to date they remain a neglected area of research. To address this gap in the literature, we

conducted an online survey to examine the degree to which support for personal autonomy may serve to buffer the negative outcomes of hoarding interventions. Recruiting participants from a registry of individuals with diagnosis of hoarding disorder, we explored aspects of respect for personal autonomy (degree of consent to the intervention and collaborativeness of the approach) as they relate to participants' distress and willingness to accept future help. Identifying such relationships can inform the development of best practices with regards to both professional and non-professional interventions for hoarding.

15. Do you Remember your First Time? Comparing the Phenomenology of Memories for First Versus Most Recent Sexual Experiences

Presenter: Stephanie Chen

Supervisor(s): Dr. Samantha Dawson and Dr. Daniela Palombo

A person's first sexual experience has been described as a pivotal event in an individuals' life, with significant implications for later sexuality. Despite the importance of first sexual experiences for an individuals' identity, no research has explored how people remember and make meaning of this experience. The proposed study examines if a person's first sexual experience is remembered differently than a neutral event from around the same time as the first sexual experience (i.e., temporal control event), and from their most recent sexual experience. Participants (n = 201) completed an online survey assessing their autobiographical memory of three events (i.e., first sex, temporal control event, most recent sex). We hypothesize that the memory of a first-time sexual experience will be associated with greater emotional intensity, valence, and vividness compared to the other two memory events. The proposed study will address the gap regarding the impactful nature of first sexual experiences.

16. Adapting a Mental Health and Substance use App to High School Students: Findings from a User-Testing Survey

Presenter: Sushmita Mahadani

Supervisor(s): Dr. Daniel Vigo

Substance use disorders (SUD) have increased in prevalence rates in recent years, with E-tools show promise for delivering mental health and substance use interventions, yet challenges remain for adherence and uptake. The usability of e-interventions like apps for university students has been widely studied, but the specific needs of high schoolers are rarely considered. Minder is a mental health and substance use app, initially created for university students. We adapted it to the secondary school context by gaining feedback from high schoolers. We designed and administered a usability survey by testing the app's current components like chatbot, videos, and screenshots. The mixed-methods analysis showed a preference for shorter, fast-paced, and easily consumable content (n=35). Results inform future phases of adapting Minder to high schoolers and emphasize co-developing more needs-focused interventions.

17. The Mediating Role of Reward Sensitivity in the Relationship between Stress Response and Depression in Female Adolescents

Presenter: Alice Erchov

Supervisor(s): Dr. Frances Chen and Bitu Zareian

Female adolescents are disproportionately impacted by depression, which significantly

impacts both social and emotional development. Past research has established the effect of aberrant stress responses and reduced reward sensitivity on the development and maintenance of depression in adolescents. In addition, previous literature has documented a link between aberrant stress responses and decreased reward sensitivity, suggesting that this may mediate the association between aberrant stress responses and depression. This research is a novel investigation into reward sensitivity as a potential mediator of the association between depressive severity and altered stress responses. In particular, we predict that increased stress reactivity and prolonged recovery periods are negatively correlated with reward sensitivity, which is in turn associated with heightened depression severity. This suggests a possible mechanism involved in the self-renewing nature of depression that may contribute to its pervasiveness and difficulty to treat.

18. Effects of Body Positivity Content on Cognitive Resources

Presenter: Deepika Goomany

Supervisor(s): Dr. Kristin Laurin

Previous research has shown that body positive content, while having beneficial effects (increased body appreciation, increased positive mood, and so on), also increases state self-objectification in women. Since self-objectification limits the cognitive resources we can use to perform tasks, we seek to investigate: if body positive content increases self-objectification, can it have the same negative effects on our cognitive resources, as self-objectification does? We will be comparing the effects of body positive messages and non-body-related positive messages on cognitive and attentional performance. We expect that participants are more likely to have depleted cognitive resources and thus poorer performance when exposed to body positive content rather than non-body-related positive content and the control condition

19. Applying Two-Eyed Seeing and Community-Led Research to Address Indigenous Community Needs

Presenter: Faith Vaughan

Supervisor(s): Dr. Nancy Sin and Lydia Ong

Indigenous Peoples of Canada have overcome many adversities due to colonial legislation. Psychological research has frequently taken a “helicopter approach,” extracting Indigenous knowledge and denying Indigenous data ownership, often without community consent (Bharadwaj, 2014). This approach has led to distrust within Indigenous populations; as such, Albert Marshall coined “Two-Eyed Seeing” (Forbes et al., 2020), which combines Indigenous worldviews and western research. Blending Two-Eyed Seeing and Community-Based Participatory Research, UPLIFT Lab has collaborated with Métis Nation of British Columbia (MNBC) to address community needs. This process and the importance of Indigenous-led research for reconciliation will be discussed.

20. Social Power

Presenter: Fiona Guan

Supervisor(s): Dr. Andrew Baron and Jessica Lee

Hierarchies in social species help organize group dynamics and influence many aspects of day-to-day life, such as mating rights, duties, and food consumption order (Smith et al., 2015). Cues such as physical strength, wealth, and prestige have been found to signal power in adults and children (Enright et al., 2020; Cheng et al., 2013). Furthermore,

children as young as three represent and infer power dichotomies from these cues of social power when two characters are in direct conflict, suggesting the role of context in children's understanding of power (Thomsen, 2019). Therefore, I investigate whether children aged 3-8 infer social power across different contexts, especially whether children consider a character with a particular power cue might be more fit to lead. The current study will examine how children start to represent asymmetrical social power, and the factors that shape perceptions of various forms of power.

21. Transfer of Valence: The Neural Correlates of Emotional Imagination

Presenter: Isabel Wilson

Supervisor(s): Dr. Daniela Palombo and Chantelle Cocquyt

In our daily lives, we experience the objects we encounter as having a positive or negative emotionality, or valence. Through a process called transfer of valence, objects can acquire the valence of neighbouring items. That is, the emotionality of an item can “rub off” on a neutral item that appears alongside it, resulting in a shift in preference for the latter. Many simple psychological processes are associated with characteristic patterns of brain activation, and this activation can be estimated using functional magnetic resonance imaging (fMRI). This project aims to use fMRI to understand which regions of the brain are active during transfer of valence. While in an fMRI scanner, participants first completed an encoding phase where they viewed a series of image pairs, each of which included a neutral object (e.g., a mailbox) alongside a neutral scene (e.g., a car) or a negative scene (e.g., a burning car), followed by a transfer-of-valence phase where they rated the pleasantness of the previously viewed neutral objects. Afterwards, we measured their episodic memory for the pairing. Imaging analyses are ongoing; however, here we present preliminary data on the regions of the brain which are active when a participant is encoding negative vs. neutral pairs. Future work aims to describe activation patterns for trials where transfer of valence and episodic memory does and does not occur.

22. How to Measure Pleasure: A Qualitative Study of University Students' Concepts of Sexual Pleasure

Presenter: Nicholas Latimer

Supervisor(s): Dr. Samantha Dawson

Introduction. Sexual pleasure is central to people's sexual lives and overall well-being. Despite its centrality, little research has examined how people define their own sexual pleasure. Objective. This study seeks to identify how people define and evaluate their sexual pleasure using a qualitative analysis approach. Hypotheses. We anticipate: 1) themes related to orgasm, intimacy, and reciprocity; and 2) that different themes will emerge between solitary and partnered contexts. Methods. Participants (N = 802) completed a cross-sectional online survey that included open-ended questions asking participants how they define and measure their own pleasure from both solitary and partnered sexual activities. Qualitative responses will be analyzed using content analysis. This research provides rare and valuable data to expand and refine academic understandings of sexual pleasure experiences.

23. Course Syllabus Study

Presenter: Ningjing Sang

Supervisor(s): Dr. Toni Schmader and Yingchi Guo

In this study, we aim to investigate how different types of perceived diversity norms impact perceivers' likelihood of taking allyship actions towards women in academic settings. Our primary focus is on two specific types of norms: extrinsic norms and moral norms. Extrinsic norms are "what the norms are" and individuals may acknowledge their existence without personally endorsing them. On the other hand, moral norms are viewed as "the right thing to do" and individuals are motivated by their own moral beliefs when it comes to supporting these norms. Through monitoring these two types of norms, we have fabricated a series of reading lists to test how different types of norms can influence the adoption of these reading lists by students. This study will help to gain insights into the nature of norm transduction that may inform better practices for promoting diversity and inclusion in academic.

24. Does Consciousness Matter?: A Novel Paradigm to Study Inattentional Blindness

Presenter: Isha Verma

Supervisor(s): Dr. Ronald Rensink

While the Invisible Gorilla Experiment is established, little is known about its underlying concept, inattentional blindness (IB). Even then, most previous methods studying IB are not robust -- they can only be carried out once, and no within-subject data is possible. IB describes the effect of failing to perceive stimuli due to attention being directed elsewhere. This could result in altered perception when evaluated with conscious versus unconscious thought, namely, identifying explicit and implicit stimuli. An explicit stimulus is direct and easily identifiable (i.e. arrows, lines, etc.), while an implicit stimulus is more subtle. This project will investigate whether implicit cues with low contrast (i.e. grey) can be consciously noted when presented simultaneously with an explicit, bold cue that could unconsciously prime responses. This study uses a novel within-subject paradigm that measures IB robustly. Participants are shown a series of trials consisting of a few components: a target symbol that stochastically appears in the middle of the screen with distractors flashing away from it. Participants then have to answer a question about whether or not they saw the target symbol and perform additional distracting tasks immediately after the trial, to further limit attention allocation. Through measuring response times, we want to identify the effects of cues directing our attention consciously versus unconsciously. Findings from this study will provide further insight into how unconscious perception can aid learning and suggest that consciousness is unnecessary for things that we have already learned, but is needed to learn and use new things.

24. Food Worry and Parental Mental Health during COVID-19

Presenter: Yenah Byun

Supervisor(s): Dr. Jennifer Black

As primary caregivers, parents are responsible for buffering the effects of stressors on children. In Canadian literature, few studies have examined the association between food-related concerns and mental health outcomes during COVID-19. We hypothesize that parents who experienced food-related worry during COVID-19 were more likely to report poorer mental health. Using a nation-wide survey, questions related to food worry, insecurity, and socioeconomic demographics will be asked. We will analyze parental data using logistic regression analyses to examine the associations between food insecurity and mental health outcomes in both univariate and multivariate models controlling for

potential confounds. These results will provide a better understanding of mental health prevalence related to food worry and insecurity for Canadian parents. With growing concerns related to the affordability of food for Canadian families, these associations are valuable for informing interventions and policies to better support caregivers.

Day 2 - Saturday, April 2nd 2022 Poster Presentation Descriptions (Group 4)

1. Religion & Goal-Pursuit

Presenter: Seph King

Supervisor(s): Dr. Kristin Laurin and Holly Engstrom

Religion is positively correlated with well-being, particularly eudemonic well-being (EWB) (Aydogdu et al., 2020, Deci & Ryan., 2002). EWB is positively correlated with increased goal pursuit (Thorsteinsen & Vitterso, 2018). Thus, we hypothesized that those who are more religious would report greater goal pursuit than those who are less religious. We recruited 538 undergraduate students at UBC and used a pre-measure demographic survey, followed by a 14-day daily diary study to measure participant's religiosity and goal pursuit. Believing in something bigger than ourselves and experiencing positive emotions were positively correlated with health & fitness goals, personal development goals, and social goals. Both personal development goals and social goals were also positively correlated with having the support of a tight-knit community and being part of a stable cohesive group. No aspect of religion we measured correlated significantly with academic goals. We conclude this study by discussing the contributions of this research.

2. Effects of State Receptiveness and State Affect on Vagally-Mediated Heart Rate Variability

Presenter: Wenjing Cao

Supervisor(s): Dr. Frances Chen and Charlotte Roddick

The ability to be receptive to opposing views is associated with affective experience and emotion regulation, while heart rate variability (HRV) is a well-established physiological marker of emotional regulation and overall health. However, the relationship between receptiveness and vagally-mediated HRV is not well understood. This study investigates the effects of state receptiveness and state affect on vagally-mediated HRV in healthy individuals. A total of 143 participants (32 males; M age = 20.17, SD = 1.87) were assessed on vagally-mediated resting HRV and HRV reactivity while watching two videos of conflicting opinions on vaccine mandates. Participants' positive and negative affect, as well as their receptiveness to each speaker's opinion, were measured after each video. The findings from this study may provide insight into the mechanisms underlying the effects of psychological factors on physiological processes involved in receptiveness and inform interventions aimed at promoting emotional and cardiovascular health.

3. Functional Assessment of the fMRI-derived Auditory Perception Network

Presenter: Yu Xuan (Rita) Jin

Supervisor(s): Dr. Todd S. Woodward

Functional magnetic resonance imaging (fMRI) is a method for tracking blood oxygen level-dependent (BOLD) signals as they move in different network configurations around the brain. The available network configurations are currently unknown. This oral presentation will display various analyses of fMRI signals during multiple cognitive tasks,

curations of anatomical configurations that repeat over tasks, and interpretations of BOLD signal changes between task conditions. The project focuses on the discovery and study of the Auditory (AUD) network involved in linguistic processing. Through two key cognitive tasks, the Thought Generating Task and the Radio Speech Task, the activation of the novel AUD network is measured during times of auditory perception. Data from the functional brain network and its associated hemodynamic responses (HDRs) were analyzed through fMRI Constrained Principal Component Analysis (fMRI-CPCA), two-way repeated-measures ANOVA, and SPSS.

4. Investigating How the Brain Generates Spontaneous Thought During Meditation

Presenter: Douglas Forrest

Supervisor(s): Dr. Kalina Christoff

Spontaneous thought is a key feature of experience, unpromptedly creating a variety of images and narrations regardless of our current situation. Though common, the neural underpinnings of this phenomena are still poorly understood due to the general inaccuracy of individuals in reporting initial thought arising. We surpass this by utilising meditators trained in the identification of thoughts arising. Meditator's brains were scanned using fMRI while meditating and reporting on spontaneous thought arising with button presses. Our results show that distinct brain systems support unique stages of spontaneous thought, spanning their initial generation, conscious elaboration, and categorisation.

5. What is the Association between Daily Active Commute and Anxiety Levels?

Presenter: Erhan Qian

Supervisor(s): Dr. Todd Handy

There is a growing literature on the association between mobility and wellbeing, particularly in clinical and aging populations, but there are gaps in the literature on the effects of physical activity on the psychological wellbeing of younger populations. This study investigated the effects of active transport (AT) on subsequent daily anxiety. The daily AT and daily anxiety scores of 200 participants were measured over a two-week period. A self-report questionnaire was administered daily, where participants reported the forms of transportation they had used that day and reported their daily anxiety on a seven-point Likert scale. A simple regression analysis will be used to determine the correlation between overall AT scores and anxiety scores.

6. Was it a Just Punishment or were they just Punishing? How Children Evaluate the Morality of Third-party Authority Figures who Punish Previously Antisocial Others

Presenter: Hattie Zhang

Supervisor(s): Dr. Kiley Hamlin

Developmental psychologists have recently begun exploring children's reasoning in grey areas of morality. Despite past research suggesting children could demonstrate sociomoral evaluations of helping versus hindering characters, the extent to which these judgements are made in relation to the prosocial/antisocial behaviours of other actors is unknown. Specifically, it has been evidenced that children dislike intentional harm, but will they condone intentional harm in the context of punishment, especially done so by an authority? In the current study, we explore whether young children would justify the punishment of previously antisocial characters when done so by third-party authority figures. Three- and four-year-olds first watch a puppet show featuring a prosocial rabbit that helps a duck and an antisocial rabbit that hinders the same duck. Then, randomly choosing either the prosocial or antisocial rabbit, the second puppet show entails the chosen rabbit asking for help. Next, an authority figure will refuse the request, hence punishing the rabbit. Another authority figure will agree to the request, helping the rabbit instead of enforcing any punishment. The children then answer a series of questions about their sociomoral perceptions of the two authority figures. We expect young children to express that the third-party punishment was justified, regardless of the punished character's prior actions. The implications of our study would indicate whether children perceive morality to be influenced by the context of other actors, as well as inform parents and policymakers about the developmental process of conditional moral reasoning.

7. Development and Validation of a Tool for Semi-Personalization in Auditory Virtual Environments

Presenter: Kimia Nouhi

Supervisor(s): Dr. James Kryklywy and Dr. Rebecca Todd

An essential prerequisite for the survival of humans is the ability to detect and localize objects in our environment. One recent avenue that has broadened our ability to investigate these processes has involved the development and implementation of virtual reality (VR) paradigms. Yet, the utility of VR often remains limited to visual experience, neglecting other sensory modalities, such as hearing. One obstacle in the development of auditory VR is the individualization of sound signals as they enter our ears. To localize sounds, we rely on features of the sounds that change depending on our unique own head and ear shape. This experiment aimed to develop and validate a method of generating semi- personalized virtual auditory environments that remain perceptually faithful to the intended real-world experience. We have participants localize virtual auditory cues across eighteen pre-existing virtual environments (white noise bursts). Localization accuracy was then compared between real-world targets and virtual targets to assess the efficacy of each of the virtual worlds. We find that our task was able to identify one or more virtual environments matches real-world localization performance thus providing an immersive and realistic experience. This work has implications and benefits for researchers, clinicians, VR creators and other AVE users. Our findings can further be integrated with artificial intelligence for better performance in those models.

8. Effects of loneliness on emotion sensitivity and heart rate variability during emotion perception

Presenter: Linda Wang

Supervisor(s): Dr. Frances Chen

Loneliness is a negative emotional experience that occurs when one perceives that their social needs are not met. Loneliness has been found to influence how people perceive emotion, but the direction of effects and the underlying mechanisms remain unclear. This study examines how loneliness affects perceptions of emotional expression and high-frequency heart rate variability (HF-HRV) during emotion perception. 155 participants (115 females; mean age = 20.18 years, SD = 1.84 years) rated the intensity of happy, sad, and angry emotions of neutral faces. Their HF-HRV was measured before and during the task. It is expected that loneliness will predict higher emotion sensitivity towards sad and angry emotions as well as smaller HF-HRV reactivity during emotion perception.

9. Mechanisms for translating short-term changes in perception in infancy into long-term developmental changes

Presenter: Tora Chen

Supervisor(s): Dr. Lauren Emberson and Zahra Abolghasem

An infant's perceptual system quickly adjusts to their newly acquired experiences. However, it is unclear how these rapid adjustments contribute to more substantial long-term changes in infants. Previous research in adults has found that dispersed training regimens that aim to reactivate the memory of initial experiences have been tied to long-lasting perceptual changes. However, it is unknown if the same is true for infants. This study investigates the role of dispersed learning in promoting long-term perceptual change in infants. 32 7-month-old infants will first undergo an initial training session to learn how specific visual-audio cues can predict the movement of colourful dots. Following this, weekly brief training sessions will be conducted to reactivate the memories. We expect that after the brief training, the perceptual system of the infants will have adjusted to the training sessions, and the audio-visual cues alone will provoke motion perception. This study hopes to provide insights into the developmental trajectory of infants' perceptual systems.

10. Picturing the Cost of Abstraction: Mind Perception Changes across Digital and Physical Pictures in the Medusa Effect

Presenter: Salina Edwards

Supervisor(s): Dr. Alan Kingstone

People in pictures lack a certain quantity and depth of features when compared to their physical selves, causing them to become abstractions. Some pictures also contain pictures within themselves, furthering this abstraction. As abstraction increases, mind perception, the process underlying moral judgement, decreases. This is known as the Medusa effect. While this effect has been established using pictures in the digital medium, it has yet to be examined across physical pictures: a gap this experiment seeks to close. We hypothesize that physical pictures of people will be perceived with higher mind perception than digital pictures. To compare these two mediums, we will measure mind perception of people in digital and physical pictures using two-alternative forced choice (2AFC) methodology. We expect to find higher consideration of mind perception given to

people in physical pictures. Understanding the cognitive biases in ethical consideration across pictorial abstractions is vital in domains such as health services, photographic evidence in court, and academic presentations.

Day 2 - Saturday, April 2nd 2022 Oral Presentation Descriptions (Group 2)

1. Presenter: Anabelle McPherson

Supervisor(s): Dr. Mark Schaller

The Dual Problems of Well-being and Environmental Concern: Can we Inspire a Better Future by Seeing Nature Through a Different “Lens”?

Spiritual connections to nature, or ecospiritual experiences, are ubiquitous and associated with positive outcomes. Efforts to improve mental and environmental health have grown, yet both are continuing to degrade worldwide. Previous studies have connected ecospirituality to both well-being and environmental behaviour, yet no experiments have looked at whether ecospirituality plays a causal role. The present study will use a photo-taking task to induce a spiritual perspective of nature in participants to understand its effects on their well-being and environmental concern. We attempt to tease apart the effects of ecospirituality, general spirituality, and nature exposure, predicting that ecospirituality will have an independent impact on well-being and environmental behaviour.

2. Presenter: Cameron Kelsey

Supervisor(s): Dr. Benjamin Matthews

Endocrine Mechanisms of Sex Differentiation in Insects

449 Abstract In sexually reproducing species, organisms differentiate into unique sexes that each serve a particular role in reproduction. Sex differentiation is a complicated undertaking that can vary enormously across species and involves a tightly-controlled orchestra of genes, hormones, and the environment. In many vertebrates, the hormonal mechanisms of sex differentiation are well understood – testosterone (T) and estrogen (E2), two members of the steroid family, are the primary sex hormones and coordinate sexual differentiation after development of the gonads. In invertebrates, ecdysteroids are orthologous to vertebrate steroids. Ecdysone and 20-ecdysone have been implicated in sexual behaviour, possibly may recapitulating the effects of T and E2, respectively. However, the complete endocrinological process of sex differentiation in invertebrate model species remains elusive. The mosquito, *Aedes aegypti*, is an alternative model to the commonly used fruit fly, *Drosophila melanogaster*, and is a major vector of diseases such as Zika, dengue, and yellow fever. Therefore, uncovering the potential role of ecdysteroids in sexual differentiation offers major benefits to both experimental and health/medical fields. Here, we examine the role of ecdysteroids in *Aedes* sexual differentiation using qPCR to measure the expression of two key ecdysteroidogenic enzymes, CYP315a1 and CYP314a1.

3. Presenter: Fides Arguelles

Supervisor(s): Dr. Joelle LeMoult and Dr. Katerina Rnic

The Moderating Role of Minority Stress on Cognitive Control Training Efficacy for Rumination and Depressive Outcomes

Given the disproportionate increase in depression prevalence among minority and minoritized individuals in recent years, it becomes important to understand the particular mechanisms that contribute to this increased vulnerability. Past research has identified minority stress as a construct which distinctly accounts for stress resulting from chronic experiences of discrimination, stigma, and prejudice. There is emerging evidence demonstrating the role of minority stress as it relates to emotion regulation deficits and ruminative thinking styles, which in turn may account for an increased risk of psychopathology. Drawing from literature characterizing depression as a disorder of emotion dysregulation, cognitive bias modification is a possible treatment paradigm that can target cognitive mechanisms often overlooked by pharmacotherapy. The present study aims to evaluate how stigma-related stressors may moderate the efficacy of a novel computer-based cognitive control training task designed to train participants to rapidly remove negative content and add positive content to working memory.

4. Presenter: Radha Bazaz

Supervisor(s): Dr. Friedrich Götz

Tightness-looseness across the Indian States

Tightness-looseness (TL) refers to the degree to which a culture enforces and regulates adherence to social norms. While prior cross-cultural research has explored TL across countries, less attention has been given to within-country variation. The few within-country studies reveal distinct correlates of TL in different cultural contexts. The present study contributes to this vein of research by exploring regional variations in TL across 31 states and union territories of India and identifying potential antecedents. Specifically, we hypothesized that the degree of TL would vary across Indian states and that ecological factors such as natural disaster prevalence, resource scarcity, and predominance of rice cultivation would predict greater tightness. To test our hypotheses, we developed an index to measure TL in each state using archival records. We then correlated the TL scores with archival data on the ecological factors. We expect to observe differences in TL across the states and positive associations between TL and the ecological variables. Our findings have the potential to contribute to a better understanding of the universality versus cross-cultural relativity of TL theories.

5. Presenter: Amina Abdelbary

Supervisor(s): Dr. Alan Kingstone and Grayson Mullen

Exploring Environments in VR: The Relationship Between Awe and Time Perception

Awe is often described as causing time to slow down, but the effect of awe on passage of time judgments (POTJs) has not been previously tested. POTJs relate to the perceived speed of time passing (Blewett, 1992). According to the valence-based model of time perception, positive emotions generally speed up the perception of time whereas negative emotions slow down the perception of time (Angrilli et al., 1997). We exposed participants to previously validated awe-inducing and control environments in virtual reality, and measured participants' subjective judgments of the speed of time in each condition. We

predicted that participants would report time as passing slower in the awe conditions compared to the control conditions. However, we found that participants reported a speeding up of time when experiencing awe, which contradicts our hypothesis and phenomenological accounts of awe but aligns with the valence-based model of time perception.

6. Presenter: Bon Cagas, Bienne Sebastian, John Carl Docog, and Joseph Melarion
Supervisor(s): Dr. Prof. Ruth Lareza Morales, MADP

LAKAS NG LOOB: Lived Experiences of Lesbian Firefighters in a Traditionally Male-Dominated Profession

In a culture where the patriarchal system is rooted in Philippine history, there were personality figures embedded in masculine figures such as Raja, Prayle, Babaylan, etc. These days, it cannot be denied that the dominance of men in one's workplace is still prevalent. However, there were people of minorities, specifically lesbians, who engaged in a male-dominated job, particularly firefighting. Therefore, it is crucial to comprehend the existence of a lesbian firefighter in a field that was historically dominated by men. The generalization of the current study, which examined the 'lakas ng loob' of lesbian firefighters in a male-dominated field, would significantly advance our understanding or gender roles in community. The vital findings of this study can reinforce the beliefs and experiences of LGBTQIA+ community members, helping to eradicate stigma and prescribed gender roles in the group. Lastly, due to the lack of enough research on the subject, the study may also help significantly advance Sikolohiyang Pilipino development. This phenomenological study examined and interpreted the lived experiences of lesbian firefighters working mostly with men. This research study sought to answer the following questions: How do they describe their experience as lesbian firefighters? How do they overcome the problems encountered being a lesbian firefighter? How do they cope as a lesbian in a traditionally male-dominated profession? How do they define 'lakas ng loob' in line with being a lesbian and a firefighter? And how does 'lakas ng loob' help the lesbian firefighters in the male-dominated profession? The participants were determined with the use of purposive sampling, which looked for lesbian people who engaged in the firefighting profession in the National Capital Region. The triangulation method was used to establish high validity and reliability in the data gathering. A semi-structured interview was conducted to collect information about the lived experiences of the participants, which was used in thematic analysis. A thorough data gathering procedure was executed in order to protect the participants' rights and consent. Thus, a descriptive method was used to arrive at a descriptive phenomenon of the lived experiences of lesbian firefighters in a male-dominated profession. There were 5 major themes that have been formulated and observed in this study: establishing a sense of fulfillment, strengthening intrinsic connection in firefighting, attaining extrinsic acceptance, sources of 'lakas ng loob', and the contributions of 'lakas ng loob.'

7. Presenter: Olivia Huntsman
Supervisor(s): Dr. Kiley Hamlin and Raechel Drew

Factors Associated with Biocentric Reasoning in Preschoolers

Biocentric reasoning, equating harm to nature and humans, emerges in preschoolers and is related to eco-friendly behaviors in adulthood (Bamberg & Möser, 2007; Hahn & Garrett, 2017); however, it is unclear what factors facilitate its' development. Here, we assess if

preschoolers' biocentric reasoning – responding to stories/pictures involving harm to nature (stomping flowers/kicking squirrel) and humans (excluding/shoving others) with similar ratings of severity ('badness' – Smetana et al., 2012) is associated with their connectedness to nature (CNIPPI) (Sobko et al., 2018) and exposure to nature (parent-reported) (Holland et al., 2021) and parents' self-reported biocentric reasoning and engagement in pro-environmental behaviors (EAI) (Milfont & Duckitt, 2010). Data collection is ongoing (target N = x); pilot data indicates that biocentric reasoning is not associated with the factors examined. Thus, parents' values and childrens' experiences may not be related to its development.

8. Presenter: Shahrazad Amin

Supervisor(s): Dr. Noah Silverberg

The Temporal Stability of Electroencephalogram (EEG) During a Metacognitive Memory Task

Following brain injury, some individuals develop functional memory problems characterized by subjective (but not objective) impairments in memory that cannot be better explained by brain abnormalities. Currently, no biomarkers predict clinical outcomes in patients with functional memory problems. A potential biomarker for various neurological conditions is electroencephalography (EEG). Memory errors can elicit specific EEG signals, called Event-related potentials (ERP), and it is possible these signals differ in people with functional memory problems. This study aims to evaluate the test-retest reliability of ERP during a metacognitive memory task in a healthy sample to establish its validity as a potential biomarker for memory problems. If ERPs demonstrate temporal stability in a healthy sample, future studies can evaluate if EEG accurately detects differences in brain activity associated with memory errors following treatment and develop surrogate biomarkers to assess treatment response in functional memory problems.

9. Presenter: Skye Zheng

Supervisor(s): Dr. James T. Enns

Improving Big Five Inventory-2 using the Expanded Format Scale Soto & John

A variety of paradigms have been proposed to measure theory of mind but with mixed success. We aimed to develop a new task to assess false belief for a wide diversity of individuals. For each trial, participants see two toys and respond to the colour of the toy cued by a pointing hand. The pointing hand is either a symbolic pointer (control condition) or belongs to an agent (social condition). Crucially, when a screen blocks toys from the agent's view, the toys may switch positions (false belief trials) or stay in place (true belief trials). Results in the control condition showed expected baseline effects of relative toy frequency and switch. The social condition is now being tested. We hypothesize that when participants hold a theory of mind regarding the agent, the difference between true belief and false belief trials will be greater in the social condition. We hope this assessment tool will assist in studying social cognition in a wide range of neurotypical and neurodiverse individuals.

10. Presenter: Sabby Cabrera

Supervisor(s): Dr. Jessica Tracy and Ian Hohm

From Popstar to President

Despite not possessing government-related education or experience, celebrity candidates have received surprising support in political elections. Although previous research has found that support for certain celebrities (e.g., Donald Trump) may be explained by parasocial relationships formed through media appearances, it remains unclear (1) whether this phenomenon generalizes to celebrities more broadly, and (2) what kinds of individual differences might moderate these preferences. To examine these questions, 477 Prolific participants were recruited and asked about their willingness to vote for celebrities. Participants were asked to identify a celebrity they were familiar with, rate the celebrity on various leadership qualities (dominance, prestige, warmth, competence) and indicate how likely they would be to vote for them. Further, participants indicated their level of parasocial connection with the celebrity and how much they engage with the celebrity in the media. Parasocial bonds influenced voting preferences, especially when participants had low self-esteem and perceived themselves as lower-status individuals, while loneliness and the need to belong were not found to affect this, partially supporting the hypotheses. Voters may be relying on their parasocial relationships to gain vicarious control when making leadership decisions, rather than to overcome loneliness. These findings have implications for the motivational processes that shape voting preferences, as well as potential future trends in political elections.

11. Presenter: Ruoning Li

Supervisor(s): Dr. Elizabeth Dunn

A Scalable Approach to Designing Sociable Spaces

Social interactions are critical for happiness and well-being, but feelings of loneliness and social isolation have been on the rise. This study aimed to address this challenge by examining how we can improve the design of physical spaces to promote social interactions among community members. Integrating insights from social psychology and machine learning, we developed an AI-powered model to predict the social interactions occurring in a building by simulating movements within the building. To validate our simulated results, we used real-life data from three student residences and surveyed the students living there about their daily social interactions. Unexpectedly, we found no significant difference in the number of daily social interactions between the three student residences, contradicting our simulated results. Potential limitations and proposed future studies for calibrating and validating the model used in our simulator are discussed. Our approach can potentially advance the understanding of the relationship between space design and social interaction, providing an evidence-based and scalable solution for researchers to comprehend how physical spaces influence social interactions and for decision-makers to design more sociable spaces..

Day 2 - Saturday, April 2nd 2022 Oral Presentation Descriptions (Group 3)

1. Presenter: Anna Mazurenko

Supervisor(s): Dr. Kiran Soma

Maternal and fetal placental regions in rats regulate corticosterone production via the 11 β -HSD1 enzyme

Corticosterone (CORT) is a steroid hormone that regulates neurodevelopment in rats, but high pregnancy CORT levels are detrimental to the fetal brain. Fetal rats primarily receive CORT produced by enzymes in the maternal and fetal regions of the placenta. For example, the 11 β -HSD1 enzyme produces CORT from its inactive metabolite, 11-dehydrocorticosterone (DHC). Since little is known about the role of 11 β -HSD1 in different placental regions, we measured 11 β -HSD1 activity in the maternal and fetal regions of rat placenta near birth. We incubated the placenta with DHC, then measured CORT produced using mass spectrometry. The data suggest that 11 β -HSD1 activity is present in both regions. Future research can explore how placental derived CORT alters fetal neurodevelopment.

2. Presenter: Adam Chun

Supervisor(s): Dr. Dr. Fidel Vila-Rodriguez

Treatment-Resistant Depression – A Complex Network

Historically, psychopathological research has employed the latent variable model to make sense of psychological data. While this model has proven useful, it fails to capture the complexity that emerges from relationships between observable variables. Network analysis is a novel method of analyzing psychological data which captures the complexity of psychopathologies by accounting for interplay that exists between observable variables. In this study, we applied this novel method to analyze psychological data from patients suffering from treatment-resistant depression. Applying a Gaussian Graphical Model to a variety of demographic, symptom, and quality of life scales, an estimated network was generated to provide a visual representation of treatment-resistant depression as a network. Visually observing the network, scales appeared to serve their intended purposes in relation to other scales. Calculated degrees of centrality suggested that the Quick Inventory of Depressive Symptomatology was the most strongly connected variable in the network.

3. Presenter: David Manuel

Supervisor(s): Dr. E. David Klonsky

What Does Meaning Mean? A Psychometric Comparison of the Tripartite Meaning Model and Alternative Structures of Meaning-in-Life.

Meaning-in-life is valued across numerous scholarly disciplines and diverse cultures. However, the nature and structure of meaning remain unclear. A tripartite structure of meaning – Coherence, Purpose, and Significance – has recently garnered theoretical and empirical support, but comparisons with alternative structures have been limited. To gain psychometric clarity on the structure of meaning, we conducted four sets of analyses in a large (N = 1913) sample of undergraduate students: 1) a confirmatory factor analysis to evaluate the validity of the tripartite structure, 2) exploratory factor analyses to evaluate possible alternative structures, 3) additional confirmatory factor analyses to evaluate the

validity of promising alternative structures, and 4) comparisons of zero-order and partial correlations between the factors in these meaning structures and important life outcomes. We found moderately strong support for the tripartite structure of meaning and mixed support for two alternative structures. Notably, across structures, only Significance maintained unique associations with suicidal desire.

4. Presenter: Ching Yan Lau

Supervisor(s): Dr. Amori Mikami

Assessing Friendship Quality of Children with ADHD: Comparison of Questionnaire and Observational Measures

Patients with concurrent disorder (i.e., co-occurring mental disorder and substance use disorder) have greater severities of childhood abuse and neglect than substance use disorder patients, and often experience recurrent relapse and rehospitalization. Considering childhood abuse and neglect are associated with greater relapses during treatment for alcohol use disorder and stimulant use disorder, childhood abuse and neglect among concurrent disorder patients may importantly contribute to relapse and hinder treatment. Methods: Adult inpatients undergoing treatment for concurrent disorders (N=210) completed the Childhood Trauma Questionnaire-Short Form. The number of relapses, positive urine drug screen and breath alcohol results, and treatment duration were extracted from patients' medical records. Results: Greater severities of childhood physical, emotional, and sexual abuse significantly predicted a greater number of positive breath alcohol results, while controlling for treatment duration. There were no observed relationships between childhood physical or emotional neglect and indicators of relapse. Discussion: Screening for and addressing a history of childhood abuse may reduce alcohol-specific substance use and relapse among concurrent disorder inpatients. Further research is needed to understand why childhood abuse, but not neglect, contributes to negative outcomes during concurrent disorder treatment.

5. Presenter: (Shawn) Yan Hui Yee

Supervisor(s): Dr. Catherine Ann Cameron

Development of Academic Integrity and Theory of Mind in Young Children

Despite the large body of research investigating academic integrity and its converse, academic dishonesty, over recent decades, there is little understanding of the developmental trajectory of integrity in children. The current study examined how this development is associated with the development of theory of mind in children aged 4–8-years-old. Age of the sample, and both first- and second-order theory of mind were negatively correlated with frequency of academic dishonesty in children. Results provide evidence for the possibility of future interventions promoting personal perspective taking as a means of enhancing the prevalence of academic honesty in education.

6. Presenter: Polina Potiagalova

Supervisor(s): Dr. Jessica Tracy and Eric Mercadante

Interpersonal Elicitors of Positive and Negative Awe

Positive-awe has been widely studied, and this emotion is known to increase prosocial behaviour in individuals. However, threat-awe, the emotion situated on the boundary between positive awe and fear, has not been well-studied, especially in its interpersonal

elicitors and effects on prosociality. Thus, exploring both the type of elicitors and prosocial effects surrounding threat-awe could help to better understand its function and how it could be harnessed to encourage prosocial behaviour. In this study, participants in an online survey were randomly assigned to watch videos meant to elicit awe using interpersonal elicitors of either positive or threat-awe and were assessed on the subsequent level of positive-awe or threat-awe experienced. To assess prosociality elicited from the experienced emotion, participants responded to a vignette where they could choose to behave prosocially or not.

7. Presenter: Darryl Liu

Supervisor(s): Dr. Connor Kerns and Victoria Wardell

Qualitative Thematic Analysis of Self-Reported Traumatic Experiences

The stressors individuals encounter and report as traumatic vary greatly but may not be adequately captured by standardized trauma assessment measures. We conducted a qualitative study to identify themes in self-reported traumatic event narratives. 175 participants briefly described any event which distressed them for more than a few weeks, and which still distressed them at the time of report. These descriptions were submitted to thematic analysis. Participants described a wide range of experiences as traumatic. While some described events represented traditional traumas (e.g. physical abuse), others represented more commonly occurring life events, with emphasis on social/interpersonal interactions. These stressful experiences may have the capacity to be traumatic and have further implications for assessing traumatic events.

8. Presenter: Valerie Teng

Supervisor(s): Dr. Lianne Tomfohr-Madsen

Stress Related to the COVID-19 Pandemic on Child Socioemotional Outcomes at One-Year

The COVID-19 pandemic led to restrictions and changes to everyday life. Few studies have explored how exposure to pandemic stressors influenced child socioemotional outcomes. Therefore, the present study examined if objective COVID-19 stressors experienced in pregnancy were related to later child socioemotional outcomes. Linear regression analysis showed that higher reported perinatal stress related to the pandemic were associated with more socioemotional problems in one-year-old infants ($F(1, 3266)=18.87, p<.001, R^2=.01, B=.10$). Therefore, implementation of timely interventions are necessary to assist children's socioemotional development during critical periods.

Day 2 - Saturday, April 2nd 2022 Oral Presentation Descriptions (Group 4)

1. Presenter: Rachel Dunn

Supervisor(s): Dr. Christian Schutz and Dr. Tommy Chao

Exploring the Relationship Between Psychedelic Use and Childhood Trauma: A Survey-Based Study

Psychedelic substances have gained attention as a potential treatment for post-traumatic stress disorder (PTSD). However, despite extensive research on childhood adversity and its effects, there is still a gap in identifying effective treatments. This study aimed to investigate whether naturalistic use of psychedelic substances influenced the effects of

childhood trauma in individuals with a history of adversity. Participants reported on measures of psychedelic use, trauma symptoms, emotion regulation, psychosocial functioning, and subjective spirituality. The study's findings will shed light on the associations between childhood adversity, naturalistic psychedelic use, and outcome variables, helping to identify whether naturalistic psychedelic use represents a potential treatment for the consequences of childhood trauma.

2. Presenter: Marie Campione

Supervisor(s): Dr. Paul Hewitt

The Therapeutic Alliance and Attachment Security in Group Therapy

Developed early in life through interactions with primary caregivers, attachment styles have lifelong impacts on individuals. Specifically, a secure attachment style is related to strong mental health and social connection. Conversely, insecure attachment styles have been repeatedly linked to poor relationship outcomes, self-worth, and mental health. During therapy, attachment styles can change, increasing in security. This change is believed to be facilitated by the therapeutic alliance, that is, the relationship between the therapist and client, which provides the client with new, positive experiences necessary to increase attachment security. The relationship between therapeutic alliance and changes in attachment security has been studied mainly in the context of individual therapy. My project investigated this relationship in the context of group therapy. I hypothesized that stronger therapeutic alliances will be associated with significant decreases in attachment anxiety and avoidance, thereby increasing attachment security. Full results from this study and implications will be presented.

3. Presenter: Judith Dsouza

Supervisor(s): Dr Nichole Fairbrother

The Relationship between Fear of Childbirth and Demographic Variables

Pregnancy is a very exciting and emotionally intimate journey for childbearing people and their families. However, it can also be an intimidating experience, with the prevalence of fear of childbirth being recorded as high as 44% among childbearing women (Onchonga et al., 2020). Furthermore, this issue becomes more nuanced among different demographic groups- in their prevalence rates, how this fear presents itself and its impact on child bearers. Thus, this study explores how the fear of childbirth manifests within different age groups, education levels and country of origin, as an extension of previous research to further illustrate this fear. Informed by this past research, it is predicted that fear of childbirth will continue to be negatively related with age, education, and Human Development Index of country of origin. The findings will be useful in guiding future research towards appropriate interventions that are uniquely tailored to different groups' needs, to reduce this fear and improve well-being during pregnancy.

4. Presenter: Alexis Seppelt

Supervisor(s): Dr Nichole Fairbrother

Minding the Pleasure Gap: Examining Sexual Pleasure Rates and Sexual Outcomes Across Various Social Groups

Sexual pleasure is a key aspect of sexual health and well-being; however, not everyone has an equal opportunity to experience it. It is possible that sexual pleasure differs across

multiple social demographic variables, though this has not been investigated to date. Objective. To examine similarities and differences in rates of sexual pleasure within and between-groups (e.g., age, sexual orientation, gender, ethnicity). Methods. Participants (N = 802) completed an online survey that included measures of sexual pleasure. Expected Results. We expect that people who identify as young, white, male, cisgender, and/or heterosexual will report experiencing the highest rates of sexual pleasure. We expect that minorities within groups who experience more social barriers, and those with intersectional social identities, will report lower rates of pleasure. Implications. This research will broaden current understandings of the sexual pleasure gap by investigating a large sample of diverse social groups.

5. Presenter: Andrea Camacho Garron

Supervisor(s): Toni Schmader and Lucy de Souza, Social Identity Lab

(Not) Meeting Expectations? Comparing Perceived Responsibility for and Frequency of White/European-Americans' Allyship

Despite expectations, White allies are perceived to be less willing to engage in racial issues (Brown & Ostrove, 2013). Expanding on this research, our work directly compares White/European-Americans' perceptions of responsibility for versus frequency of allyship. In Study 1 (N = 157; CloudResearch), White/European-Americans perceived White agents as more responsible than Black agents for taking six forms of allyship (De Souza & Schmader, 2022). However, White/European-Americans uniquely perceived White agents to take less action than they were perceived to be responsible for. In Study 2 (N = 167; CloudResearch), we took inspiration from Ashburn-Nardo et al.'s (2008) Confronting Prejudiced Responses Model and investigated factors influencing White/European-Americans' own frequency of allyship. Specifically, we tested the effect of self-efficacy, social support/backlash, and recognition of opportunities on White/European-Americans' own allyship. Participants' confidence in being successful positively predicted their frequency of all forms of allyship. However, anticipating support or backlash from their own racial group did not predict how often White/European-Americans would take any allyship action. Finally, we found that recognition of opportunities uniquely predicted confronting one's own prejudice and one's own efforts to support and include others. This research elucidates why White/European Americans, even those interested in taking action, are not perceived to meet allyship expectations.

6. Presenter: Nicholas Latimer

Supervisor(s): Dr. Frances Chen

The Association Between Hormonal Contraceptive Use and Symptoms of Psychopathology

Previous research suggests that hormonal contraceptive (HC) use, particularly during adolescence, can increase risk of depression. However, the relationships between HC use and other mental health disorders aren't fully understood. Therefore, in this study, we will explore the relationships between HC use and symptoms associated with other mental health disorders. We hypothesize that HC use, particularly during adolescence, is associated with higher levels of psychopathology. Data will be analyzed from 927 participants with different HC use histories (e.g., current-users, past-users, and never-users). Participants completed a survey collecting information about their HC use

history and incidence of mental health disorder symptoms in the past two weeks. This study expands previous literature by clarifying relationships between HC use and symptoms associated with various mental health disorders. This work may improve scientific understanding of adverse psychological effects from HCs, and allow women to make more informed decisions for their reproductive health.

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