

PSYCHOLOGY DISCOVERY CONFERENCE

April 10th, 2024

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The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is centralized within the Office of Indigenous Relations.

Questions? Contact us at psychology.discovery.conference@uwaterloo.ca.

SCHEDULE

TIME	EVENT	LOCATION
9:00am – 10:00am	Check-in	AL Lobby
9:30am – 10:30am	Poster Session A	AL Lobby
10:30am – 11:30pm	Coffee + Mingling	AL Lobby
11:00am – 12:00pm	Keynote Address	AL 116
12:00pm – 1:30pm	Lunch	AL 208
	Workshop: Writing Tips (12:15pm)	AL 211
1:30pm-3:00pm	Student Talk Sessions	AL 116
3:00pm-4:00pm	Poster Session B	AL Lobby

GENERAL INFORMATION

Poster Session

All attendees are free to browse posters before the conference on the PDC website.

Morning Poster Session (9:30am – 10:30am)

Afternoon Poster Session (3:00pm – 4:00pm)

WiCSC+ Lunch and Learn Workshop

During this workshop, we will be going over some tips to help with thesis and dissertation writing. We will also broadly cover the submission process at the University of Waterloo. Topics discussed will include time and motivation management, as well as structuring your thesis or dissertation.

KEYNOTE ADDRESS

The (subjective) times of our lives: How our construction of the past and future matters for identity, relationships, and goal-pursuit



Anne E. Wilson

Wilfrid Laurier University

People's sense of personal identity is shaped in part by how they remember their past and predict their future. But how people think about the past and the future is quite malleable. Subjective perceptions of time and relevance can play a powerful role in how connections between past, present, and future are forged and severed. I will discuss insights from several lines of research exploring people's sense of identity over time, how they grapple with the desirable and unwanted parts of the personal past, and how they make predictions and decisions about their future.

STUDENT TALK SESSION

1:30 pm – 1:45 pm

Prune to bloom: In search of a computational model of learning utilizing synaptic pruning

Caroline Simpson & Dr. Britt Anderson

Synaptic pruning, combined with synaptogenesis, is theorized to be key to our brain's ability to learn effectively and efficiently. After birth the human brain consists of the majority of neurons it will have. A substantial quantity of synaptic connections are built quickly in early development only to be subsequently pruned by maturity.

In this exploratory study, we implement a computational model that augments the Cascade-Correlation learning algorithm with the addition of synaptic pruning. We examine how the model's learning ability is affected by different manipulations of the synaptic proliferation and pruning processes. Cascade-Correlation networks avoids the catastrophic forgetting that many neural network models suffer from by freezing the network structure as new neurons are introduced. Our modified model aims to retain the networks ability to remember while adding remodelling capabilities. We explore the potential advantages of over-connecting and pruning versus standard network procedures that assume fixed network size and connection architectures.

Presenter: Caroline Simpson;
cpsimpso@uwaterloo.ca

1:45 pm – 2:00 pm

Trajectories of child & caregiver resilience on the Connor-Davidson Resilience Scale following a brief Emotion-Focused Family Therapy (EFFT) intervention

Imogen Sloss, Jackson Smith, Laura Colucci, Mirisse Foroughe, & Dillon T. Browne

Families play an influential role in promoting youth well-being, which has led researchers to develop family-based approaches that aim to support youth with mental health challenges. The present study will explore a two-day caregiver group Emotion-Focused Family Therapy (EFFT) intervention. We will investigate whether this intervention is associated with trait resilience—as measured by the 10-item Connor-Davidson Resilience Scale (CD-RISC-10)—which involves an individual's ability to cope

positively with challenges. Participants include 194 caregivers who participated in the group EFFT intervention. Caregivers completed measures reporting on themselves and their children (between the ages of eight and 18) at six time points from pre-intervention to 12-months follow-up. The present study will use multilevel modelling to investigate how much variation in trait resilience is attributed to change over time, individual differences, and family differences. Furthermore, we will examine how trait resilience changes over the course of 12 months, and whether these trajectories differ for children and caregivers. Finally, we will explore whether caregiver social support and family functioning predict change in trait resilience over time. The findings of this research will deepen our understanding of the role that families play in nurturing youth well-being and trait resilience.

Presenter: Imogen Sloss; isloss@uwaterloo.ca

2:00 am – 2:15 am

Empathy's Double-Edged Sword: Challenges in Delivering Negative Feedback

Krista Quinn & Abigail Scholer

Empathy—the capacity to understand and relate to others' experiences (Salovey & Mayer, 1990)—is often cited as integral to effective leadership (Zivkovic, 2022). However, one facet of effective leadership that may be especially challenging for those higher in empathy is delivering negative feedback, or information about how someone's current state falls short of a goal (Kluger & DeNisi, 1996). Prior work found that empathic leaders reported lower levels of attentiveness and more distress after providing negative feedback (Simon et al., 2022). We developed a novel feedback paradigm in which participants chose whether to provide negative feedback; participants also reported on their experiences of providing feedback. Two exploratory studies (N = 100) indicated that participants high in personal distress, one facet of empathy, were more likely to avoid providing feedback, provided fewer negative comments, and were more upset while providing feedback. In contrast, participants high in empathic concern and perspective-taking (other facets of empathy) provided more negative comments and experienced less discomfort. We discuss implications for effective feedback provision and leadership.

Presenter: Krista Quinn; k6quinn@uwaterloo.ca

2:15 pm – 2:30 pm

Examining the motivations underlying children’s use of affiliative language

Sarah D. English, Linda Sosa-Hernandez, Kristie L. Poole, & Heather A. Henderson

Social connection is a fundamental human need and motivation. To fulfill the desire for social connection, individuals may use *affiliative language* to facilitate a positive a social interaction. However, given the variability in when and why individuals use affiliative language, there may multiple motivations for doing so. One potential motivation may be an approach-avoidance conflict that is characteristic of temperamentally shy children struggle in novel social settings. Data will be presented from 186 children (93 dyads; $M_{age} = 10.72$, $SD = 0.83$, 58.1% girls). Children were observed during a 5-minute unstructured interaction with an unfamiliar, age- and gender-matched peer on Zoom where they were simply asked to “get to know each other” (Usher et al., 2018). Children and their parents reported on the child’s shyness (Crozier, 1995; Ellis & Rothbart, 2001). To assess affiliative language, children’s conversations were transcribed and analyzed using dictionary-based text analysis software (Pennebaker et al., 2015). Specifically, we coded total word count and the proportion of children’s affiliative language use.

Results revealed a significant negative association between a child’s shyness and total word count ($p < .01$). Interestingly, however, a positive association was found between shyness proportion of affiliative language ($p < .05$). That is, despite speaking less, children higher in shyness used more affiliative language when speaking to their social partner. These findings demonstrate that while shy children tend to talk less than their peers, the content of their speech subtly signals their affiliative motivations during novel social interactions. Importantly, shy children may be particularly motivated to use affiliative language as a strategy to maximize the likelihood of a successful interaction.

Presenter: Sarah English; senglish@uwaterloo.ca

2:30 pm – 2:45 pm

Music has the capacity to evoke memories by aligning temporal and emotional context

Pelin Tanberg, Ryan Yeung, & Myra Fernandes

Hearing music can evoke vivid memories from one’s past. Here, we examined the extent to which musical versus linguistic features of songs influenced retrieval of autobiographical memories (AMs). To do so, we compared the quality and quantity of AMs evoked by musical cues (popular songs) versus matched nonmusical cues (spoken lyrics). On each trial, participants ($N = 84$) listened to an auditory memory cue, which was either musical (a song clip) or spoken (a computer-generated neutral voice reading the lyrics of the song). While listening, participants indicated via button press whether the cue evoked an AM – if so, they then described the AM in text and rated the AM’s properties (e.g., age of memory, feelings of reliving, cue familiarity). Controlling for cue familiarity, we found that musical cues were significantly more likely to evoke AMs ($M = 49\%$) than spoken cues ($M = 33\%$). Further, AMs evoked by musical cues elicited significantly greater feelings of reliving compared to spoken cues, though this was driven by cue familiarity rather than cue type. Finally, we found evidence of temporal and emotional alignment between cues and their evoked AMs: older cues (e.g., songs released in 2017 vs. 2020) evoked older AMs, and more positive cues (e.g., songs of higher valence) evoked more positive AMs. Findings suggest that musical cues enhance AM accessibility, potentially via temporal contexts and emotionality.

Presenter: Pelin Tanberg; pelin.tan@uwaterloo.ca

2:45 pm – 3:00 pm

The Cost of a Favor: How AI-Augmentation Impacts Workplace Reciprocity

Pearlyn Ng & Doug Brown

Recent advances in computational power and new machine-learning techniques now allow organizations to also use AI-based solutions for managerial tasks (Brynjolfsson & McAfee, 2017). Using AI lets employees outsource some of the cognitive energy they need to complete a task, which can save time and improve organizational efficiency. However, as AI processes increasingly become common, how does this usage impact social exchange processes in the workplace? This research examines why and how AI affects social exchange processes through the lens of

workplace helping behavior. Additionally, we explore how characteristics of the helper, help type and help outcomes moderate this effect. Across four empirical studies, we show that (1) AI-augmented help is detrimental toward reciprocity, (2) Spending more time on helping someone does not necessarily increase reciprocity, and (3) Not disclosing AI-use ultimately worsens outcomes. Finally, we discuss the theoretical and practical implications of our findings.

Presenter: Pearlyn Ng; png@uwaterloo.ca

POSTER SESSIONS

CLINICAL

In what contexts can self-compassion be learned from a peer?

Monica Grove & Allison Kelly

Self-compassion – a robust predictor of well-being – can be increased by observing a self-compassionate peer (Miller & Kelly, 2020), but what facilitates this process? Social cognitive theory suggests that observational learning is more likely when a peer demonstrates a behaviour that leads to positive outcomes, because the observer comes to expect similar outcomes themselves (Bandura, 1986). This study tests this theory vis-à-vis self-compassion. College women (N = 321) low in self-compassion listen to an alleged peer describe academic distress: self-compassionately, emphasizing positive outcomes; self-compassionately, without describing outcomes; or without self-compassion. We will test the hypotheses that: 1) observing a self-compassionate peer vs. not leads to greater academic self-compassion over the subsequent 2-4 days; 2) this effect will be greater after observing a peer who emphasizes positive self-compassion outcomes vs. not, indirectly via increased post-observation positive outcome expectancies about self-compassion and motivation to be self-compassionate. Findings will enrich our understanding of how our social context can promote learning of self-compassion. NOTE: This poster was previously presented at the 2024 Society for Personality and Social Psychology Annual Convention.

Presenter: Monica Grove; megrove@uwaterloo.ca

Available during morning poster session

Self-Compassion as a Moderator of the Relationship between Loneliness and Body Image

Mia Mackenzie, Dr. Allison Kelly, & Dr. Jenna Gilchrist

Negative body image, characterized by self-conscious emotions such as guilt, shame, envy, and embarrassment, often stems from perceived failure to align with societal ideals of appearance. According to Gilbert's Tripartite Model and the Hypervigilance to Social Threat Hypothesis, loneliness may contribute to negative body image because lonely individuals

have an overactive threat-system. This leads them to interpret social interactions as threatening, thus increasing the negative attributions and appraisals that generate self-conscious emotions. Gender differences also influence this dynamic, with men and women experiencing distinct societal pressures and body-related self-conceptions. Self-compassion may mitigate the impact of loneliness on body image by modulating the threat response by toning down the threat system and activating the soothing system. Data from a sample of incoming undergraduate students (N = 199, Mage = 17.79) were analyzed to examine the potential of a three-way interaction between gender, loneliness, and self-compassion in predicting negative body image. Moderation analyses revealed that while self-compassion and loneliness independently related to body image, gender did not significantly influence these relationships, nor were interaction effects observed. These results support previous findings which demonstrate how loneliness and self-compassion are related to negative body image. Further, they extend previous findings to a late adolescent sample, where body image is tied to an individual's sense of self. Considering the results, more work is still necessary to better understand what other factors may mitigate the effects of loneliness on negative body image.

Presenter: Mia Mackenzie;

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Available during morning poster session

Exploring the directional effects of parental differential treatment and sibling relationship quality

Lillian Eckert, Jasmine Zhang, Mark Wade, & Dillon Browne

Parental differential treatment (PDT) is a key component of siblings' unique experiences within the family context. PDT is characterized by parents treating one sibling differently than another in terms of affection, warmth, sensitivity, and support (i.e., differential positivity) or coercive control, reactivity, harshness, and punishment (i.e., differential negativity). PDT is associated with poorer sibling relationships, partially through fostering anger and rivalry between siblings, which can lead to hostile behaviours. Conversely, it is possible that poorer sibling relationships may disrupt parent-child interactions and cultivate negative parental attitudes

which may further influence parental treatment and PDT. The robust testing of this association using longitudinal panel methodology has yet to be established, thus the directional effects of the relationship are unknown. This study uses a longitudinal design to explore the directional associations linking PDT and sibling relationship quality. Data come from an international sample of parents/caregivers ($n = 192$) with at least two children aged 5–17. Caregivers responded to online surveys at 7 timepoints between May 2020–August 2022. A random-intercepts cross-lagged panel analysis (RI-CLPM) was conducted, examining the relationship between PDT and sibling relationship quality across 3 timepoints. Preliminary results suggest greater differential negativity than usual leads to a more positive sibling relationship, while PDT on average and irrespective of time is associated with a poorer sibling relationship. Findings will be interpreted for greater understanding of the internal workings of family relationships within and across subsystems.

Presenter: Lillian Eckert; l2eckert@uwaterloo.ca

Available during morning poster session

Can positive memory recall enhance the desire for social connection in those with high social anxiety?

Sophie Kudryk, Adrienne Richter Powell, Jolie Ho, & David Moscovitch

Following the sting of exclusion, recalling a positive social autobiographical memory can boost self-esteem in those with high social anxiety (Moscovitch et al., 2023). Could boosting self-esteem via positive memory recall also enhance their desire to affiliate with others? In the present preregistered study, 341 undergraduates were excluded during an online game of catch. They were then randomly assigned to reflect on a positive social memory where they felt socially accepted, or to view and reflect on perceptual qualities of neutral, non-arousing images. Participants then anticipated an interactive social media task and reported their desire to affiliate with others and how much they expected such affiliation to be rewarding. Self-esteem was measured at baseline, after completing tasks in either condition, and after anticipating the social interaction. Moderated mediation analyses (index = .034, 95% bootCI = .002, .074) revealed that memory recall led to higher self-esteem than the control condition, especially for those with high social anxiety ($b = .102$, $p = .029$), and that

higher self-esteem led, in turn, to heightened affiliative desire and expectations ($b = .334$, $p < .001$).

Presenter: Sophie Kudryk; smkudryk@uwaterloo.ca

Available during morning poster session

Extending the Study of Purity Culture: Implications for Understanding South Asian Women's Sexuality

Taranjot Bedi-Padda & Uzma Rehman

Purity culture, a phenomenon that emphasizes premarital sexual abstinence, is typically associated with Evangelical Christianity in sexuality literature. However, key features of this culture, including sexual double standards, view of women as sexual gatekeepers, view of men as unable to control their desires, extreme modesty, prizing of virginity, and benevolent sexism, are not unique to Evangelical Christian groups. In our current work, we are looking at this phenomenon in a sample of South Asian women. Our goals are to: (1) demonstrate that beliefs central to purity culture are also present in other cultural groups, and (2) to investigate the mechanisms by which these beliefs lead to lower sexual well-being. We propose that South Asian women who present greater endorsement of purity culture will be more likely to experience lower sexual satisfaction, and that the mechanism for this will be non-erotic thoughts, defined as nonsexual thoughts that occur during sexual activity. To probe our research questions, we conducted two studies. The goal of the first study was to develop a quantitative measure of non-erotic thoughts. In the second study, we recruited 250 participants using Prolific and asked them about the degree to which they endorse purity culture, and to report on their non-erotic thoughts as well as their sexual functioning. Our findings have the potential to demonstrate that purity culture is a phenomenon that extends beyond Christian Evangelical communities and that endorsement of these beliefs is associated with lower sexual satisfaction in women from South Asian cultural contexts.

Presenter: Taranjot Bedi-Padda;

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Available during morning poster session

Climate Change: A Study on the Feelings, Thoughts, and Functional Impacts of Climate Change in University Students

Alina Wirth & Dr. Christine Purdon

Anxiety due to climate change has become a more popular topic in research, given the increased frequency of climate disasters occurring in the world. Research has demonstrated emotional distress and pessimistic thoughts about the future due to climate change (Hickman et al., 2021; Wullenkord & Ojala, 2023; Ogunbode et al., 2022). In this study we investigated the emotional, cognitive, and functional impacts (negative affects to daily lives) university students experience due to climate change as an indicator of climate change anxiety. We explored the relations between climate anxiety with resilience, exposure to climate events, and other mood states. Additionally, we examined students' perceived efficacy of local (the University of Waterloo) and national (the Canadian federal government) responses to climate change and its relations to the components of climate anxiety.

Results revealed that university students experience a significant amount of negative emotions and thoughts about climate change, but no functional impact. Correlations were found between the components of climate anxiety and resilience, exposure, and other mood states. Furthermore, students reported a greater sense of betrayal than reassurance in the government's response to climate change, while the opposite was found with the university's response. The components of climate anxiety were correlated with perceived inadequacies of government and university responses. Our findings highlight the influence climate change has on our psychological well-being. It also emphasizes the importance of clear communication by influential institutions regarding their actions to address climate change to help reduce climate change anxiety.

Presenter: Alina Wirth; awirth@uwaterloo.ca
Available during afternoon poster session

From Parents to Offspring: Investigating the Link Between Parental ACEs and Child Environmental Sensitivity

Yashika Berry & Dr. Dillon Browne

Adverse childhood experiences (ACEs) have been widely accepted as including abuse, neglect, and household dysfunction which are linked to poor well-

being and health outcomes. The current literature has established strong associations between ACEs and individual health and is now focusing on how parental ACEs manifest in ways that can risk their offspring's functioning and pose behavioural challenges. Studies show that maternal ACEs can affect infant physical health and socio-emotional symptoms. Further research on older children has even revealed associations between maternal ACEs and their child's psychopathology. This study, therefore, aims to expand the literature by examining parental experiences of childhood maltreatment on their child's sensitivity to the environmental context. It has been shown that environmental sensitivity is necessary for successful development. Being sensitive to one's environment is crucial for an individual to identify, evaluate and act on external situations that threaten or promote survival, development, and reproduction. On the other hand, sensitivity to context can have social disadvantages such as interpersonal conflict and pose as a risk for increased problematic behavior. The current study predicts that children of parents with higher ACEs will be more sensitive to their environmental influences, however, one sibling will likely be more sensitive than the other. This study also aims to measure for social support and hypothesizes that family and social support will moderate the negative effects of parental ACEs. The data comes from a 2021 international sample that includes dyads of caregivers (N = 549) and their children (N = 1098).

Presenter: Yashika Berry; yberry@uwaterloo.ca
Available during afternoon poster session

Self-compassion negatively predicts affect variability over two weeks

Korlacka, M. A., Katan, A., Gilchrist, J.D., Grove, M., & Kelly, A.C.

Self-compassion is theorized to promote balanced emotions in the face of challenging experiences (Neff, 2003a). Although existing studies highlight self-compassion's association with reduced negative affect, most studies are cross-sectional and examine average levels of negative affect, but not variability in affective states over time. The present study was one of the first to address this gap by examining whether trait self-compassion predicted variability in negative affect in 124 women with bulimia nervosa, a population characterized by greater affective

variability. Participants completed the trait Self-Compassion Scale (Neff, 2003b) at baseline and reported on their daily negative affect for two weeks. Hierarchical regression analyses revealed that higher self-compassion was associated with lower variability in negative affect ($\beta = -0.10, p < .001$), after controlling for mean negative affect ($\beta = 0.14, p < .001$). These findings are among the first to support the theory that self-compassion promotes less variability in negative affect. Trait self-compassion may therefore protect against emotional reactivity and facilitate emotional balance.

NOTE: This poster was previously presented at the 2024 Society for Personality and Social Psychology Annual Convention.

Presenter: Michelle Korlacka;
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Available during afternoon poster session

The Academic Resilience of University Students with Attention-Deficit/Hyperactivity Disorder (ADHD)

Brianna MacPherson, Dr. Simon Beaudry, & Dr. Meredith Rocchi

Attention-deficit/hyperactivity disorder (ADHD) is a developmental disorder that has both behavioural and cognitive presentations, which typically results in inattention, hyperactivity, and impulsivity. University students with ADHD, who represent approximately 2 to 8% of the North American university population, may constitute a particularly resilient group as a result of their experience with adversity. There has been little research investigating the relationship between psychological need satisfaction and academic resilience. In this study, we wanted to learn about the influence that academic and social adversity have on the academic resilience of university students with ADHD. We hypothesized that students with ADHD will display higher levels of academic resilience, as well as greater levels of basic psychological need satisfaction in unsupportive environments. In this cross-sectional study, we performed a primary data analysis of 244 undergraduate students from the University of Ottawa (170 women; 69 men; $M = 19.20$ years, $SD = 3.23$). All participants completed a scale similar to the University of Ottawa Course Evaluation A-Report, the Interpersonal Behaviours Questionnaire, and the Basic Psychological Need Satisfaction and Need Frustration Scale for their

favourite and least favourite courses; as well as the Connor-Davidson Resilience Scale and the Academic Resilience Scale. Participants who self-identified as having ADHD and social anxiety disorder (SAD) completed the Adult ADHD Self-Report Scale and the Ryerson Social Anxiety Scales. Participants with ADHD ($M = 100.1, SD = 16.19$) were less academically resilient than participants without ADHD ($M = 108.7, SD = 15.07; p = .008; d = 0.27$).

Presenter: Brianna MacPherson;
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Available during afternoon poster session

Fear of Self-Compassion as a Moderator in The Observational Learning of Self-Compassion

Doris Wang, Monica Grove, & Allison Kelly
Self-compassion is the practice of treating oneself with kindness, understanding, and compassion in times of difficulty, failure, or suffering (Gilbert, 2014; Neff, 2003). As predicted by social cognitive theory (Bandura, 1986), previous research shows that self-compassion can be learned through observing self-compassionate coping in a peer (“observational learning”; Miller & Kelly, 2020; Miller et al., 2022). However, a lower level of self-compassion is often accompanied by a high level of fear of self-compassion. Fear of self-compassion can include feeling undeserving of compassion or worries that self-compassion leads to lowered personal standards, and this fear potentially causes negative outcomes in psychological well-being (Gilbert, McEwan, Matos et al., 2011; Gilbert, McEwan, Gibbons et al., 2011; Gilbert, 2012). The present study is the first to examine the role of fear of self-compassion in observational learning of self-compassion and the effects of observing a self-compassionate peer on fear of self-compassion. Participants will be randomized to one of three conditions by listening to different audio clips of a peer describing academic stress: distress only (control), distress and self-compassionate coping, and distress and self-compassionate coping with an emphasis on rewarding outcomes. We will test the hypotheses that observing a self-compassionate vs. not self-compassionate peer model will lead to: (1) greater state self-compassion in the observer, and 2) lower state fear of self-compassion in the observer. We will also test whether fear of self-compassion moderates the effects of observational learning of self-compassion. Data collection is

ongoing, and results and implications will be presented.

Presenter: Doris Wang; y3934wan@uwaterloo.ca

Available during afternoon poster session

Sexual consent motivations and attachment: The mediating role of experiential avoidance

Jessica Edwards & Uzma S. Rehman

Sexual consent (i.e., communication of one's willingness and/or desire to engage in sexual activity) is a crucial component of sexual communication that is often practiced in passive, indirect ways despite the ideal of affirmative (direct, ongoing, reciprocal) consent. Many barriers to affirmative consent are relational or emotional in nature, rather than reflective of skill/knowledge deficits. We conducted a study to determine whether: (1) attachment style (i.e., the extent to which one views close others as consistently available and responsive) is associated with these barriers, and whether: (2) experiential avoidance (i.e., tendency to avoid unpleasant thoughts, feelings, and other internal experiences) is a key mechanism underlying the association between attachment style and sexual consent motivations. 163 participants recruited on Prolific completed self-report measures of attachment (Experiences in Close Relationships Scale – Revised) and experiential avoidance (Brief Experiential Avoidance Questionnaire). Then, they read 5 vignettes involving consent communication dilemmas and reported consent motivations for each situation using a measure developed by the researchers. Attachment insecurity and emotional avoidance both correlated with poorer consent motivations (i.e., stronger perception of barriers, weaker perception of rewards). Furthermore, the link between attachment and consent motivations was fully mediated by reported experiential avoidance. Our findings highlight the importance of experiential avoidance as a key mechanism underlying the motivations to engage in sexual consent communication. That is, individuals with high attachment insecurity are more likely to avoid distressing thoughts and feelings, which in turn is associated with their subjective appraisal of consent communication as less rewarding and more costly.

Presenter: Jessica Edwards;

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Available during afternoon poster session

Helping or Harming? The Impact of Exploring Trauma Within a Men's Residential Addiction Treatment Program

Simrat Tung & Dr. Jonathan Oakman

Trauma and substance abuse (SA) are often concurrent and associated with greater symptom severity and poorer treatment outcomes. There is debate regarding best-practice for treatment of these disorders (i.e., sequential or simultaneous). The concern for integrated treatment is fear of re-traumatization or increased client drop-out from SA programs. Despite support for greater efficacy of integrated treatment, evidence of higher drop out is concerning given that completing SA treatment is associated with lower rates of relapse. This research assesses potential iatrogenic impacts of an integrated group-based treatment implemented at a men's residential SA program containing a module exploring the role of trauma in one's SA. Participants are monitored throughout their long-term treatment, completing self-report questionnaires pertaining to sleep, mood, and trauma prior to starting treatment, before and after the 'Exploring Trauma' (ET) unit, and at the end of treatment. Currently 93 participants have enrolled, however the study is ongoing and the sample size may continue to grow. Iatrogenic impacts would be reflected in increased scores for sleep disturbance and trauma symptoms pre and post the ET unit, and higher drop out during, and immediately following ET. Results would contribute to the advancement of effective SA treatment, and potentially reduce rates of relapse.

Presenter: Simrat Tung; s3tung@uwaterloo.ca

Available during afternoon poster session

Enhancing Learning Outcomes: Exploring the Role of Cognitive Skills when Children Teach a Robot

Thuvaraka Mahenthiran, Elaria Ebeid, Charlotte Aitken, Celina Bowman-Smith, Edith Law, & Elizabeth Nilsen

Background: Children demonstrate increased learning when they teach others versus learning for themselves. Social robots have been used to enhance children's learning. However, there is a paucity of research examining how children's cognitive skills relate to learning outcomes when teaching robots, as well as whether associations differ by robot behaviour.

Method: 8–10-year-olds (N=115) taught a classification system to a robot in one of three robot mistake conditions: correct (no errors), logical (errors on untaught material), or illogical (errors on previously taught material). Learning outcomes were assessed through participants' knowledge of the classifications and ratings of their own teaching/learning. Cognitive skills were assessed via parent-reported executive functioning (EF) and a vocabulary task.

Results: Children who taught a robot that made illogical mistakes showed better performance on the classification task than children in the other two conditions. Children's cognitive skills were not related to their performance but related to self-assessment: for children who taught a logical robot, better EF and verbal skills related to lower ratings of teaching success.

Discussion: Children's acquisition of novel information through teaching a robot depended on robot behaviour. When their robot tutee made mistakes in an unpredictable fashion, children learned more, potentially due to increased attention to the material. Additionally, in the logical condition (robot mistakes following a predictable pattern) children with higher cognitive skills rated their teaching as lower, potentially because they (accurately) detected that their teaching was unrelated to the robot's performance. This research provides valuable information as technology is leveraged for educational gains.

Presenter: Thuvaraka Mahenthiran;
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Available during morning poster session

Attachment and connection: Exploring the moderating role of attachment insecurity in sexual communication and relationship outcomes

Kendra S. Wasson, Uzma S. Rehman

Sexual communication (SC) is essential to sexual and relationship wellbeing, allowing individuals to build mutually pleasurable sexual repertoires (Hess & Coffelt, 2012). Rancourt and colleagues (2017) identified two sexual communication patterns (SCPs): collaborative (e.g., cooperating, mutually expressing feelings) and negative (e.g., expressing negative affect, withdrawal). Collaborative SCs are linked to better relationship outcomes, while negative communication is associated with poorer outcomes.

Despite its importance to intimate relationships, SC is avoided more than nonsexual communication for many varied reasons, including increased threat to self and a hesitancy to be vulnerable to possible negative emotions. It is, therefore, important to identify which individuals may experience more barriers to SC. The goals of the current study were to replicate and extend past work on attachment and SC in two ways (McNeil et al., 2018). First, we looked at different patterns of communication rather than focusing only on positive and negative behaviours. Second, the different methods allow for investigation of the robustness of the previous findings across different methods of assessing communication. Participants completed an online survey (n = 333). Moderation analyses revealed that avoidant attachment but not anxious attachment consistently moderated the relationship between collaborative and negative SCs and relationship and sexual satisfaction. There are many applications of this work. Our findings support attending to partners who may fear intimacy and closeness when discussing conflictual sexual issues (i.e., avoidant), including adjusting interventions to avoid feeling overwhelmed or flooded (e.g., progressing slowly, attending to verbal and nonverbal signals of detachment) to increase their engagement.

Presenter: Kendra S. Wasson;
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Available during afternoon poster session

Feelings of Shame Predict Greater Obsessive-Compulsive Symptom Severity

Aliya McNeil & Christine Purdon

Prior research suggests that a medium effect size exists for the relationship between shame and obsessive-compulsive disorder (OCD) symptom severity. However, shame overlaps with several similar constructs, most notably guilt. Although shame and guilt are both negative self-conscious emotions that often arise in response to mistakes or interpersonal wrongdoings, the therapeutic approaches for reducing intense shame and guilt differ. As such, delineating the role of each in the development and persistence of OCD is crucial. An online survey study completed by 340 undergraduate students sought to explore whether feelings of shame uniquely predict OCD symptom severity, when controlling for depression and feelings of guilt. Consistent with our hypothesis,

shame significantly predicted OCD symptom severity, over and above the influence of guilt and depression. Leading models of OCD posit that compulsions function to neutralize anxiety and distress resulting from obsessions. The results of this study add to the literature by suggesting that shame may be an important emotion to consider to adequately capture the diversity of experiences of people living with OCD. Given that feelings of shame significantly predict OCD symptom severity, it may also be valuable for therapists to explore whether a client's compulsions are implemented with the goal of decreasing feelings of shame or preventing future feelings of shame. If OCD symptoms are being maintained by feelings of shame, therapists may find it beneficial to integrate content from therapeutic approaches that target shame directly, such as compassion-focused interventions.

COGNITIVE

How Moral Mandates Impact Decision Making

Keegan Colvin, Jordan Sheen, & Samuel Johnson
Research shows that the application of external motivators (punishers and rewards) can decrease internal motivation. While past literature generally focuses on punishers and rewards as mechanisms of controlling the behaviour of others, another mechanism of the same function is a partial removal of choice. In this experiment, participants play a modified version of the dictator game where they are told that they must donate at least 5% of their allotted money to another participant. By introducing a mandated minimum donation in a dictator game, we attempt to induce a feeling of removal of choice, or constraint morality, in a situation where participants still have a large degree of freedom. We expect to find that these constrained participants will have a decreased internal moral incentive, leading to smaller donations when compared to a control group. We also expect power distance orientation, the extent to which one accepts a power imbalance, to increase the impact of this moral rule. Namely, those high in power distance orientation are expected to have an increased tendency to adopt constraint morality.

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Available during morning poster session

The effects of mind-wandering on time perception

Solana Redway-Ziola, Dr. Daniel Smilek, & Adrian Safati

Our awareness and perception of time shapes our consciousness experiences, forming a link between our memories, the present, and our future expectations; fundamentally defining our awareness and selfhood. An existing model called the Pacemaker Accumulator Clock Model explains one's time perception as a production of a series of pulses that are summed up to depict the experienced time interval (Wittmann, 2009). In this model, attention controls a switch-like effect that determines whether pulses are flowing through and then being totalled in the time interval estimation (Lake et al., 2016). When an individual's attention is not focused on timing, the accumulation process is stopped and thus we believe there is a decrease in the perceived duration of the time interval. For instance, when mind wandering, our attention spontaneously drifts from our current task and immediate environment to an internal stream of consciousness. Recent research from our lab has demonstrated that individuals have the capacity to regulate their mind wandering in response to instructions (Safati & Smilek, 2023). By experimentally manipulating levels of mind wandering through instructions as participants perform a simple task we aim to explore the relationship between mind wandering and time perception. Using the methodology developed by Safati and Smilek (2023), participants will complete several blocks of the MRT and intermittently report on their level of mind wandering (Safati & Smilek, 2023). The MRT is a computer programmed task where participants are asked to press a computer space bar in sync with a series of unwavering auditory tones that are similar to a metronome beat.

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Available during afternoon poster session

The impact of cross-modal repetition on the Illusion of Truth Effect

Spencer Kramer, Jonathan Fugelsang, & Katherine White

We are bombarded with so much information and misinformation daily that it is sometimes hard to know what to believe and what not to believe. One issue is that information that is easier to process is

often perceived as more true, a phenomenon known as the Illusion of Truth (IoT) effect. Previous research has demonstrated that repetitions of statements lead to higher truth judgments, presumably because the statements become easier to process. However, this work has almost always involved repetitions in the visual modality. We investigate whether repetitions in the auditory modality lead to the same effect and whether the effect occurs across modalities (i.e., from visual to auditory and vice versa). We explored this by replicating a classic IoT experiment, but manipulating whether participants were presented with repetitions of statements within a modality or across modalities. We found that the IoT effect is present beyond visual statements, that the relative strength of the IoT effect is equivalent in the auditory and visual modalities, and that we can observe an IoT when a previously experienced statement is later presented in a different modality. Our results indicate the robustness of the IoT effect, demonstrating that no matter the modality, people are more likely to believe information is true if it is repeated. These results should be used as a cautionary tale to encourage people to be critical of the information they read or hear.

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Available during afternoon poster session

Development and Validation of the Attentional Control of Deep Concentration (ACDC) Scale

Ashley Choucroun, Samantha Ayers-Glassey, & Daniel Smilek

Background: Attention Deficit Hyperactivity Disorder (ADHD) has been increasingly recognized as involving a spectrum of attention-regulation difficulties, including hyperfocus, which is characterized by states of intense sustained attention. Existing self-report measures of hyperfocus tend to include items measuring the consequences rather than the construct itself, thereby insufficiently addressing the aspect of attentional control often associated with hyperfocus experiences. Aim: This study aims to address this gap by introducing and validating the Attentional Control of Deep Concentration (ACDC) scale: a novel self-report measure focused on indexing the central characteristic of attentional control within hyperfocus to better distinguish the specific elements of hyperfocus from those of similar attentional states.

Method: Phase One involved developing an initial item pool based on self-reported hyperfocus experiences in the existing literature and evaluating its validity using a large non-clinical sample. Phase Two, informed by Phase One, focuses on refining and further validating the final ACDC scale with a second non-clinical sample.

Results: Phase One demonstrated the initial item pool's convergent validity with existing hyperfocus measures, its discriminant validity in differentiating from flow states, and its significant correlations with ADHD symptomatology. Based on these insights, Phase Two, currently in progress, focuses on further refining and validating the scale.

Conclusion: Initial results support the developing theory that hyperfocus may be best understood as a unique attentional state distinguished by involuntary engagement and control difficulties. The development of the ACDC scale marks a significant advancement in measuring this construct, enhancing our understanding of hyperfocus's role within ADHD's attentional spectrum.

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Available during morning poster session

COGNITIVE NEUROSCIENCE

Self-regulatory, cognitive and personality contributions to an ontology of boredom proneness

Jamie Nettinga, Anvita Gopal, & James Danckert
Boredom proneness shows consistently high correlations with depression despite feeling phenomenologically distinct. In this exploratory study, we explored self-regulatory, cognitive and personality variables that might disambiguate trait boredom proneness from both depression and anxiety. We first ran regression on a large survey dataset (~n=2300) predicting boredom proneness, depression and anxiety using different sets of variables. By plotting the standardized beta weights on polar plots for each regression, the resulting 'fingerprint' for each domain can be compared. Notable differences emerged for each construct. For example, low levels of self-control were more predictive of boredom proneness than depression and anxiety. Whereas, increased neuroticism was most predictive of anxiety followed by depression and least predictive of boredom proneness. As for cognitive variables, low

levels of flow were most predictive of anxiety followed by boredom proneness and then depression. This research can further knowledge around what variables might be driving the high associations between boredom proneness and depression as well as what variables contribute to making them distinct constructs.

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Available during morning poster session

Affective regulation and trait boredom: The role of interoception

Chantal Trudel, Daniela Pasqualini, Vanessa Baaba Dadzie, & James Danckert

Previous research has shown that boredom proneness is associated with low self-control and alexithymia (low capacity to identify one's affective state). However, available data fails to fully capture the relationship between boredom proneness and interoception. The latter is the ability to sense and label internal body processes. To investigate the possible connection between boredom proneness and interoception, an online exploratory study was conducted on MTurk during the months of August and September 2022 (n=350). The results suggest that boredom prone adults do attend to their internal states but with limited accuracy. A restricted interoceptive ability could explain in part the difficulty to predict a suitable activity to attenuate boredom; thus perpetuating the experience. Since boredom proneness is associated with maladaptive behaviours and important mental health issues such as depression, further research needs to be conducted to better understand the effect of inaccurate perception and interoceptive deficits for the boredom prone individuals.

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Available during morning poster session

Differences in Need and Judgement of Agency as a Function of Boredom Proneness

Vanessa Baaba Dadzie, Allison Drody, & Dr. James Danckert

Boredom is a negatively valenced emotion caused by different psychological factors. Agency is considered a strong human need and has been theorized as being a cardinal component of the experience of boredom. A diminished sense of control over events in a person's

environment underlies the experience of boredom, precipitating the inability to engage meaningfully. Across 2 studies, we distinguish between the two foci of agency and their respective association with boredom. We build on the established relation between boredom and self-control in our first study, in which survey data from two samples establish a negative relationship between the constructs of boredom and agency, such that the highly boredom prone experience a low sense of agency. In a second survey study, results indicate that while boredom proneness has no impact on the capacity to judge agency, state boredom and the judgement of agency are negatively correlated. State boredom ratings were negatively correlated with a measure of individual differences in anthropomorphism which assessed the tendency to ascribe intentionality to non-human elements. Our findings provide meaningful insights into the role of agency in the experience of boredom. Further work will provide deeper insights into both the state and the trait propensity to feel boredom more frequently and intensely.

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Available during morning poster session

Anxiety and early stimulus processing: an ERP study

Zelin Chen & Roxane J. Itier

Event-Related Potentials (ERPs) have been extensively used to study cognitive control. Specifically, the N2 is maximal at fronto-central regions around 200-400 ms post-stimulus and reflects conflict monitoring. The P3 is maximal at centro-parietal sites 300-500 ms post-stimulus and reflects attention allocation. The N2 and P3 amplitudes are larger following incongruent relative to congruent stimuli, reflecting greater conflict monitoring and attentional engagement, respectively. Trait anxiety has been associated with more negative N2, but its association with P3 remains inconclusive. Further, prior work has examined anxiety modulations using stimuli that implies social threat, such as angry faces. It is unclear whether trait anxiety modulates cognitive control in response to non-social neutral stimuli. The current study investigated anxiety modulation of the N2 and P3 in a classic arrowhead flanker task (N = 73). Stimulus-locked ERPs following congruent and incongruent arrow trials were subjected to a within-

subjects comparison and then regressed on trait anxiety (STICSA) scores. Significant differences between congruency conditions started around 280ms, showing enhanced amplitudes for incongruent than congruent trials. This activation maps onto the N2 and P3. Anxiety was correlated with smaller P3 amplitudes at fronto-central sites for congruent trials between 420-520 ms. The results suggest that trait anxiety might weakly impair attentional engagement with non-social neutral stimuli. Anxiety was associated with less efficient attentional engagement during congruent trials, but only during later stages of processing around the P3 component. No correlation with anxiety was seen around the N2 timing, revealing no cognitive impairment of early conflict processing.

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Available during morning poster session

Are ERPs to threat-related facial expressions driven by perceived arousal?

Amie J. Durston & Roxane J. Itier

Visual perception of threat-related facial expressions, such as fearful and angry faces, is critical to respond to danger in the environment. However, within-subject comparisons of these expressions' visual processing, measured by event related potentials (ERPs), is limited, with the few existing studies employing small sample sizes and error-prone statistics. In addition, expression-related ERP modulations are supposedly reflecting vigilance mechanisms driven by stimulus arousal, enhancing threat detection. Yet, this idea has never been tested empirically. Thus, the present objectives were twofold; first, to clarify the difference in ERP amplitudes elicited by fearful and angry expressions compared to neutral and happy expressions; second, to test whether perceived face arousal drives these amplitude differences. Face-related ERPs were recorded while participants (n = 81) viewed faces expressing fear, anger, happiness, and no emotion during a gender discrimination task. Next, participants viewed each face again, and rated its arousal and valence on a Likert scale from 1 (very unaroused/ very negative) to 9 (very aroused/ very positive). ERP data were analyzed in a data-driven manner (all time points, all electrodes) using robust mass univariate statistics and strong corrections for errors. Preliminary results suggest that emotional expressions modulated

ERP responses from 75ms-350ms. Fearful and angry expressions differ mainly around the N170 (120-150ms; $p < .008$) and the P2 (150-220ms; $p < .05$), which seems to be driven by face arousal.

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Available during morning poster session

The impacts of modality on the self-reference effect and positivity bias

Alexandra Anacleto, Katherine White, & Roxane Itier
People tend to better remember information that has been encoded in reference to the self than information that pertains to someone else, a phenomenon termed the self-reference effect (SRE). In addition, healthy adults tend to display a self-positivity bias whereby they prioritize the encoding of positive relative to negative information about the self. Previous studies have assessed these two biases using the Self-Referential Encoding Task (SRET) wherein participants endorse, using a yes/no judgement, visually presented positive and negative trait adjectives, as either accurately representing them or another known character (e.g., Harry Potter). This task is then followed by surprise recognition tasks to probe memory for these adjectives. To our knowledge, no research has examined whether these two biases also exist when the information is presented through the auditory modality. An experiment is ongoing whereby the SRE is assessed both visually (n=41) and auditorily (n=48). Preliminary results reveal a significant SRE in both modalities, and no interaction between SRE and modality. They also reveal no significant self-positivity bias in either the visual or the auditory modality.

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Available during morning poster session

The effects of cannabis on mind wandering

Wisam Almohamad Alkheder, Adrian Safati, & Daniel Smilek

The growing accessibility of high potency products at Canadian cannabis retailers highlights the need to advance our understanding of the effects of cannabis on cognition. Prior research has demonstrated that consumption of THC, a primary psychoactive compound in cannabis, increases mind wandering. Further research is needed to explore how the effects of cannabis differ across mind wandering subtypes

and how various cannabinoid profiles available in consumer products influence these effects.

To examine the effects of cannabis on mind wandering 50 regular users who smoke legally purchased pre-rolled joints will take part in a three-session remote study. Sessions 1 and 3 are scheduled on days of planned abstinence while session 2 will immediately follow planned use. Participants will report the quantity and cannabinoid profile of the product they consume.

While on a video call with researchers, in each remote session participants will complete 3 blocks of a simple metronome response task, in which they press a spacebar in sync with a steady audio tone. At the start of the second and third blocks participants will be instructed to mind wander either 20% or 80% of the time to test their capacity to regulate their mind wandering behaviour. Throughout the task random thought probes will ask participants to report on their subjective experiences of spontaneous and deliberate mind wandering, examining response variability as a behavioural correlate. We hypothesize cannabis use will increase mind wandering rates, impair mind wandering control, and that effects will be more pronounced with higher THC and CBD levels.

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Available during morning poster session

The Relationship Between Late Night Usage of LEARN and Academic Performance

Adrian Safati & Daniel Smilek

Compiling a large dataset (n = 135k) from access logs for all users of the University of Waterloo's learning management platform LEARN between Fall 2011 - Fall 2022 with anonymized academic records we examined temporal trends in the rates of late-night usage and the relationship between late-night usage and academic performance.

After adjusting the access logs to user local time with a GeoIP database we observed a steady increase in the rates of late-night usage over the years in our dataset with a large uptick in terms affected by disruptions to learning caused by the COVID-19 pandemic. Overall, we found that late night usage of the LEARN platform was associated with poorer end of term grades.

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Available during afternoon poster session

The usefulness of encoding techniques in supporting learning in-person and online: the role of personalization

Sophia H. N. Tran & Myra A. Fernandes

Past work has demonstrated that drawing a sketch, compared to other strategies during encoding, improves memory of to-be-remembered information (Wammes, et al., 2016; Tran & Fernandes, 2023). A large body of evidence has demonstrated that similar brain regions related to motor and perceptual processing are active when observing or performing a representative action, suggesting that mirror neurons in the brain can contribute to learning (Rizzolatti & Craighero, 2004). Here we examined whether an observer's memory for words is improved when watching someone else draw or write to-be-remembered information. Depending on group, participants (n=45 in each) either performed the encoding tasks themselves, observed another person doing the tasks, or watched a video of the tasks being performed in an online learning environment. All participants were shown target words sequentially, along with prompts (intermixed, within-subject) to either silently read, write, or draw a picture of the target. On a later free recall test, participants were given 2-minutes to type all the words they remembered from the encoding phase. For both performers and observers, drawing benefited recall the most. Results suggest that encoding by conceptualizing a drawing is sufficient and beneficial to memory regardless of whether it is performed or observed, in line with past research suggesting that mirror neuron activation can support learning. Importantly, the magnitude of the drawing benefit was greatest when this encoding task was performed rather than observed or watched in a video, suggesting an additional role of personal relevance in enhancing memory. While drawing is always beneficial, performing it maximizes its effectiveness.

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Available during afternoon poster session

Enhancing Memory Using Enactment in Stroke Patients: Assessing the Role of Semantic Integration and Cognitive Planning

Yadurshana Sivashankar, Brady Roberts, & Myra Fernandes

Objective: Previous research has suggested that performing an action depicting the meaning of a target word (known as ‘enactment’) benefits later memory retrieval, relative to reading. Some studies have proposed that enactment confers a memory benefit by allowing for multimodal encoding of the target word through the integration of verbal and motoric representations; a process thought to be localized within the parietal lobe. Others have instead suggested that cognitive planning preceding the execution of an action (likely requiring frontal lobe-based processes) is the critical factor boosting memory. Here, we looked for evidence to support the involvement of brain areas responsible for the memory benefit conferred by enactment. In doing so, we make inferences about the neural mechanism underlying this mnemonic effect.

Participants & Methods: We assessed memory retrieval performance following enactment or silent reading at encoding in participants who sustained a focal stroke to either parietal (n = 6), or frontal (n = 11) regions of the brain, and in age-matched healthy controls (n = 20).

Results: As predicted, enactment led to higher recall performance, compared to silent reading, in all three groups. However, the magnitude of the enactment benefit was the greatest in frontal patients (d = 1.14) followed by healthy controls (d = 0.67), and was the least in parietal patients (d = 0.22).

Conclusion: These findings inform models of the neural basis of the enactment benefit to memory. They also suggest there are limitations to mnemonic benefits for parietal patients, when integration of multimodal information is required.

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Available during afternoon poster session

Happy and angry facial expressions are processed independently of task demands and context congruency – An ERP Mass Univariate Analysis

Calla Mueller, Amie J. Durston, & Roxane J. Itier
Neural decoding of others’ facial expressions is a critical first step in social interactions. Whether this decoding is influenced by task demands and by context remains debated. A previous study from our lab investigated these potential modulations using event related potentials (ERPs). We presented neutral faces paired with negative or positive situational

sentences, followed by the same individuals’ faces expressing happiness or anger, as if reacting to the situation in a congruent or incongruent way. In this within-subjects design, participants discriminated between the two expressions (emotion task) and identified if the situation and emotional expression matched (congruency task). The original publication analyzed ERP data following expression onset with a classic approach, focusing on specific electrodes and time points, an approach known to inflate type I and type II statistical errors. The present project re-analyzed these data across the entire epoch and scalp using LIMO EEG, a robust hierarchical Mass Univariate Analysis toolbox. We found significant effects of expression during the N170-P2 interval (113-234ms), and a main effect of congruency around a P3 or LPP-like component (236-398ms). Congruency interacted with task, being significant in the congruency task only, suggesting a limited and task-dependant influence of semantic context. Importantly, emotion did not interact with any factor, suggesting facial expressions were decoded automatically, regardless of context or task demands. The results and their discrepancies with the original findings will be discussed in the context of ERP statistics and the replication crisis.

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The Effect of Task Type on State Empathy

Seth B. Winward & Roxane J. Itier

Based on trait-level research, empathy is typically divided into affective constructs such as affective sharing and cognitive constructs such as empathic concern and perspective-taking. Whether state empathy is also multidimensional has yet to be conclusively assessed. The present study used a within-subjects design to investigate whether the affective and cognitive dimensions of state empathy manifest differently as a function of task type. Participants viewed contextual priming images depicting hands and feet in painful and neutral scenarios, followed by congruent faces making pained or neutral expressions. Participants completed empathy tasks reflecting affective sharing, empathic concern, and perspective-taking as well as a gender discrimination control task. As expected, significantly greater empathy ratings were found for painful stimuli relative to neutral stimuli in all empathy tasks but not

in the control task. Importantly, task type significantly modulated empathy ratings even in response to neutral stimuli, with empathy ratings on the perspective-taking task being significantly lower than ratings on the affective sharing and empathic concern tasks. Difference scores between painful and neutral conditions revealed that state empathy was lower for affective sharing relative to both cognitive empathy tasks, but no difference between empathic concern and perspective taking tasks was seen. These results indicate that participants may have difficulty distinguishing their level of concern from their estimations of how much pain the target is in. Alternatively, participants' concern may simply be proportional to their perception of others' pain. Our findings suggest that the differences between cognitive empathy constructs may not persist outside the trait-level context.

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Available during afternoon poster session

A global analysis of vocal music scales across stylistic regions

Khalil Husein, Elizabeth Phillips, & Steven Brown
Musical scales are used to create songs worldwide. Most theories of scales and their origins draw from instrumental tuning based around meeting mathematical ratios. However, scales produced for the voice, the oldest musical instrument, have been relatively understudied, especially in indigenous cultures. In this study, we gathered evidence for a more holistic, global model of scales. In particular, we explored whether scales are structured to reflect the vocal imprecision that is inherent to human singing, regardless of culture. To do this, we analyzed 418 vocal, unaccompanied indigenous songs across the ten principal music-stylistic regions of the world. Each song's scale was characterized and scale types were compared within and between regions. Regions where instrumental scale theories are dominant, including Europe, Central Asia and the Middle East, showed different spacing patterns between scale tones (intervals) than the rest of the world. Indigenous vocal scales consistently contained fewer scale tones and larger intervals than scales from instrumental regions. The structure of indigenous vocal scales also appeared to be more complex than scales in instrumental regions, reflected in the higher number of different

interval sizes between consecutive scale tones. Apart from Europe, which mostly contained major scales, and Australia, which mainly used minor-type scales, musical scales showed large within- and between-region diversity. These results provide support for a physiological model of scale origins. This model proposes that scales optimize interval sizing to account for vocal imprecision in human singing, creating enough interval space to distinguish between adjacent scale tones.

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The Effects of Cyclic Sighing on Mood, Heart Rate Variability, and Breathing Rate

Isabelle Boucher & Mike J. Dixon

Cyclic sighing is a deep breathing technique with many putative health benefits such as promoting parasympathetic nervous system activity. Recent research has shown that cyclic sighing may also be effective at increasing positive affect (Balban et al., 2023). In that study, just five minutes of cyclic sighing a day for a 20-days resulted in significantly higher positive affect and lower breathing rate compared to a mindfulness mediation condition. Surprisingly, there were no significant effects of cyclic sighing on heart rate variability (HRV). In a replication and extension of Balban et al., we assessed whether cyclic sighing would elevate HRV and increase positive affect over and above a non-breathing focused positive affirmation condition as well as a no-treatment control. We hypothesized that five minutes of cyclic sighing each day for twenty days would result in a significant increase in HRV, higher positive affect and lower breathing rates compared to a positive affirmation and no treatment condition. Our findings demonstrate that cyclic sighing did result in increases in HRV compared to the two other conditions, however, breathing-rate reductions were equivalent for the cyclic sighing and positive affirmation groups. Importantly, there were no significant differences among the groups in either positive affect or anxiety. Since our study included a larger sample size, this may suggest that Balban et al.'s positive affect findings may have been a Type 1 error. The effects of cyclic sighing on psychological factors like mood and anxiety are not yet well understood and further replication studies are critical.

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Available during afternoon poster session

DEVELOPMENTAL

Children use incurred costs to predict emotion but not actions

Claudia G. Sehl, Stephanie Denison, & Ori Friedman
People expect that others will be biased by sunk costs in their decisions. However, previous work has shown that children do not hold this same expectation. We tested between two explanations for why children neglect sunk costs when anticipating actions. One explanation is that children may not tag items with the costs incurred to obtain them, and so they see items as equal value. Alternatively, while adults see choosing high-cost items as avoiding major losses of investments towards them, children might not think future actions can make up for sunk costs. However, children may still see incurred costs as causally relevant for other effects, like negative emotions. In three experiments, 4-7-year-olds (total N=320) and adults (total N=429) saw a character who collected two identical objects, one easy to obtain and the other difficult. The character could only keep one object and participants either predicted which object the character would be sadder about, or which object the character would keep. Other experiments examined other action and emotion judgments. Participants anticipated that characters would feel sadder about high-cost items. However, only adults thought the character would keep high-cost items whereas children chose between objects at chance-level. These findings show that children are not entirely insensitive to sunk costs. Children see sunk costs as causal, and our findings also suggest that costs are integrated into children's and adults' theory of emotions. Moreover, the developmental difference in sunk cost reasoning is suggestive that children complete some aspects of mental accounting, but not all.

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Available during morning poster session

Children's beliefs about possibility: Ordinary, Improbable, and Immoral Events

Mopreet Pabla & Ori Friedman

This project investigates children's understanding of ownership as it relates to changing physical properties

of an object. We seek to determine whether changing an object's appearance affects children's understanding of ownership rules. In this between-subjects design, children aged 2-5 were shown a bear along with a ball-shaped and stick-shaped piece of Play-Doh. Children in the belong condition were told that the bear owns one of the pieces of Play-doh. Children in the control condition were told the bear likes one of the pieces of Play-Doh. In both conditions, the appearance of the Play-Doh was then changed from ball to stick or from stick to ball. In the belong condition, children were then asked which piece of Play-doh belonged to the bear. We predicted that children's understanding of ownership would not change based on the appearance. However, results show children aged 2-3 based ownership on the appearance of the playdoh and while 4-year-olds were at chance, it's at age 5 when children begin basing ownership on the piece of Play-doh itself.

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How to assess children's sense of belonging in non-school contexts? A validation study of children's community and program-level belonging survey for ages 8 to 13.

Min Seo, Serena McDiarmid, & Heather Henderson
Previous research on children's sense of belonging has primarily focused on school settings. However, it is undeniable that their sense of belonging at non-school contexts also plays a crucial role for their psychological development and overall well-being (Baiden et al., 2014; Latikka et al., 2023). To assist community organizations in assessing and enhancing this sense of belonging in the non-school contexts, the Waterloo Region Belonging Survey – Middle Childhood version (WRBS-Middle) was created. This study aims to evaluate the psychometric properties of the WRBS-Middle by examining internal consistency, validity, and factor structure of the survey for the use with children aged 8 to 13 years old. Once validated, the WRBS-Middle could be implemented by community organizations to empower program facilitators with effectively assessing and improving the sense of belonging among their participants for the targeted age group.

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Available during afternoon poster session

How Many Languages Do You Know? Children Infer Language Background from Accent

Ashley Avarino, Shaneene Heupel, & Katherine White

Children expect language to carry information and, by 14 months, monolingual children appear to expect other individuals to communicate in a single language (Colomer & Sebastian-Galles, 2020). Children also appear to make inferences about speakers with unfamiliar accents, including that they were born far away, or are more likely to make grammatical errors (Weatherhead et al., 2018; Rett & White, 2022). But do children infer that someone with a foreign accent is likely to speak an additional language? We tested this question by presenting 4-7-year-olds (N=96) with scenarios in which they first heard two English speakers, one with a native English accent and the other with a non-native English accent (German, Italian, or Mandarin). They then heard a 3rd speaker who made a request in an unfamiliar language (German, Italian, or Mandarin, depending on the accent condition). Children were asked which of the first two speakers would understand the 3rd speaker's request. Across all age groups (and increasingly with age), children chose the speaker with the non-native accent. This suggests that children may expect speakers with non-native accents to speak additional languages. Follow up studies are examining the specificity of this effect.

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Available during afternoon poster session

Investigating a growth frame for delivering failure feedback

Candice Rubie & Abigail A. Scholer

A critical factor that facilitates progress and engagement in goal-pursuit is feedback – information about how people are doing in relation to their goals. Failure feedback is especially beneficial for subsequent goal-pursuit, as research suggests that people are often more likely to increase their effort and commitment towards goals on which they are falling short. However, despite considerable evidence that failure feedback can be beneficial, feedback receivers often tune out failure feedback because they find it ego-threatening, failing to reap its benefits. The present study (N = 100) tests specific elements that can be incorporated into failure feedback messages to

recontextualize failure as growth and encourage feedback-receivers to learn from their failures. An initial study using hypothetical scenarios suggests that people experience greater motivation, goal-commitment, and self-efficacy after receiving failure feedback with the growth frame (vs. no frame). These findings suggest that the growth frame may provide a more effective way to deliver failure feedback.

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Available during afternoon poster session

Let me say that again: Repairing Miscommunications with Voice Assistants

Emily Shiu & Katherine White

Voice assistant (VA) devices such as Google Assistant, Alexa, and Siri have become commonplace on mobile devices and in many households, enabling people to execute simple computer tasks using speech. The development of these interfaces must consider the socio-cognitive factors of the human users. Previous studies on VA interfaces have focused on monolingual populations or contexts, but bilingualism research has shown that language use often differs between bilinguals and monolinguals, even in single-language contexts. Therefore, studying bilinguals' responses and behaviours with VAs is crucial. We conducted an online experiment in which (early, late) bilinguals and monolinguals (N=20) were asked to make requests of Google Assistant on their phones. The requests were chosen to either be likely or unlikely to elicit miscommunications. Participants also completed a questionnaire about their experience with and perceptions of previous VA interactions. In ongoing analyses, we are examining the frequency of miscommunications across speakers of different language backgrounds, as well as whether they differ in the nature of their miscommunications and repair strategies. The study's findings will provide valuable insight into the socio-cognitive processes involved in using voice assistants, and have practical implications for the continued development of inclusive VA technology.

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Available during afternoon poster session

The influence of partner shyness on children's social engagement within unfamiliar peer dyads

Aarani Suhapiramam, Sarah D. English, Linda Sosa-Hernandez, Kristie L. Poole, & Heather A. Henderson

Previous literature suggests that shy children exhibit poorer communication skills than their less shy peers (e.g., speaking less in novel social situations; Coplan & Evans, 2009). Moreover, increased shyness is associated with decreases in social engagement during interactions with unfamiliar peers (Walker et al., 2015). Although studies have examined children's own communicative behaviours during social interactions, there is limited research examining how a partner's social engagement and shyness influences a child's own social engagement. The current study aims to examine how children's social engagement is correlated within unfamiliar peer dyads, as well as how partner shyness influences a child's own social engagement.

Participants included 186 children (93 dyads; Mage = 10.72, SDage = 1.09; 58.1% girls), who were observed interacting with an unfamiliar age- and gender-matched peer during a 5-minute unstructured interaction via Zoom. Children and parents reported on the child shyness using the Child Shyness Questionnaire (Crozier, 1995) and the Early Adolescent Temperament Questionnaire-Revised (Ellis & Rothbart, 2001), respectively. Children's social engagement will be coded for number of seeks, number of shares, and total time talking using the Mangold INTERACT software (Mangold, 2020). We hypothesize that social engagement will be positively correlated within dyads. Moreover, we predict that after controlling for a child's own shyness, their partner's shyness will be positively associated with the child's: (1) total time talking, (2) total number of seeks, and (3) total number of shares. Results will be discussed in terms of the evocative effects of temperament on social partners when getting to know one another.

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Available during afternoon poster session

INDUSTRIAL/ORGANIZATIONAL

Student Evaluations of Teaching Mostly Measure Customer Satisfaction among University Students: Evidence from a Policy Capturing Design

Iris Xing, John Michela, & Ramona Bobocel
Universities commonly use student evaluations of teaching (SET) to assess instructional performance. However, SET are biased by non-instructional factors

both instructor-related (e.g., gender) and course-related (e.g., course topic). Moreover, students' ratings are not correlated with student learning. Thus, some writers suggest SET measure customer satisfaction. This suggestion was tested and supported in the present study. Our policy capturing design allows — at the individual respondent level — quantification of course ratings' association with favorability of satisfying course conditions such as high course marks or pleasant classrooms. Consistent with the consumerist perspective, course ratings varied with such conditions in significantly different ways among respondents. Cluster analysis bolstered the consumerist interpretation, as a limited number of profiles of consumer preferences emerged (as in studies of conventional consumer segmentation). The findings overall imply that universities should reconsider the meaning and proper use of SET. On the one hand, SET promote student voice that can inform university and instructor-level initiatives for teaching improvement. On the other hand, reliance on SET for personnel decisions violates organizational justice when these ratings vary with instructors' social group membership or other factors outside instructors' control.

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Available during morning poster session

Moral restoration: Understanding employees' reparative and retaliatory motivations in the aftermath of organizational transgressions

Megan R. V. Herrewynen & Annika Hillebrandt
Despite efforts to reduce ethical misconduct by organizations, organizational transgressions remain very common. Understanding the outcomes of such transgressions is important, as this can facilitate recovery and prevent future transgressions. Whereas the Industrial/Organizational Psychology literature has focused on identifying the outcomes of organizational transgressions for organizations (e.g., financial losses), we argue that it is also critical to understand how employees respond to transgressions at the organizational level. Drawing on social functional theories of emotion, we argue that employees can experience vicarious guilt in response to an organizational transgression. Vicarious guilt, in

turn, can motivate employees to engage in specific behaviours that benefit the social collective and restore moral order – reparative behaviour (e.g., supporting victims of the transgression) and organizational retaliatory behaviour (i.e., behaviour aimed teaching the organization a lesson and preventing future transgressions). Our hypotheses were supported across two studies with samples of full-time employees – a critical incident recall study and a vignette-based experiment. Study 3 is currently in progress. Taken together, our studies provide insight into employee-level responses to organizational transgressions, advance our understanding of vicarious guilt in organizational contexts, and highlight how and why individual employees may be motivated to repair harm and restore morality in the wake of an organizational transgression. Practically, these insights can assist organizations in the aftermath of a transgression. By understanding employee responses, organizations can create targeted interventions to assist employees during the recovery period, which may reduce the likelihood of repeated transgressions.

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Available during morning poster session

Microaggressions and identity protection through the lens of COR theory: A theoretical model

Charlotte Young & Wendi Adair

Over the years, many top management positions have been filled with White male employees due to diversity related barriers such as stereotyping and exclusions from informal communication networks (Kilian et al., 2004). We propose that one of these barriers is microaggressions; defined as brief verbal, behavioural or environmental indignities that demonstrate hostile and derogatory insults towards a minority group (Sue et al., 2007). Microaggressions have many harmful effects on employees including lowering job performance and satisfaction and increasing stress and turnover intentions (Best et al., 2023; Fattoracci & King, 2023; McCallaghan, 2022). According to COR theory, a person will reallocate their resources to reduce the stress of having their identity attacked leading to not having the resources

to distribute to other areas of work identity (Hobfoll, 1989; Holmes et al., 2016; Kim & Meister, 2023) In this instance, a minority person may reallocate their resources to identity protection responses to diminish the effects of microaggressions (Alarcon, 2011). We propose a theoretical framework that suggests when a minority person uses energy resources to protect their identity, they no longer have the energy resources necessary to allocate towards seeking promotions in their workplace. Through this study we hope to demonstrate other obstacles minority groups face in the workplace and how that can affect their ability to and interest in promotions at work. This study could also serve as a basis for new studies in allyship at work and how that can mitigate the effects of microaggressions on individuals in the workplace.

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Available during morning poster session

Sexual Minorities and Leadership Opportunities

Alexis M.F. Collins, Dr. Douglas Brown, & Dr. Wendi Adair

Effective leadership is crucial for organizational success, yet research often overlooks the complex interplay of personal attributes and social perceptions influencing leadership effectiveness. This study aims to address this gap by examining the distinct and combined effects of gender presentation and sexual orientation on leadership perceptions.

Drawing on social identity theory and prototype matching theory, we propose that individuals rely on gender presentation as a cue to form initial judgments about leadership potential. Societal norms shape associations between gender presentation and specific traits, leading to stereotypes that influence leadership evaluations. We hypothesize that feminine presentations align more with communal traits, making them perceived as a better fit for non-profit environments, while masculine presentations align with agentic traits, potentially favouring them in for-profit settings. Individuals with androgynous presentations may face additional challenges due to negative stereotypes associated with ambiguity. This research seeks to distinguish the impact of gender presentation from sexual orientation on leadership perceptions by incorporating non-binary individuals into the study. By untangling these complex relationships, we aim to shed light on the

factors that influence perceptions of leadership potential and contribute to a more inclusive and equitable leadership landscape.

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Available during afternoon poster session

Victim or perpetrator?: How organizational transgressions affect employees and how these detrimental effects can be mitigated

Esosa Omoregbee, Annika Hillebrandt, & Maria F. Saldanha

From environmental pollution to fraud and corruption, organizations often violate moral standards. However, scholars have a limited understanding of the impact of such transgressions on the organization's employees. Drawing on the needs-based model of reconciliation, we propose that employees may perceive themselves as victims due to their lack of influence in the decisions that led to the transgression. However, employees may also see themselves as perpetrators due to their connection with the organization that committed the transgression. In turn, employees who see themselves as victims may experience a loss of agency, while those who see themselves as perpetrators may experience a threat to their moral identity. Ultimately, these negative psychological outcomes may lead employees to withdraw from their organization. However, we propose that these negative effects can be mitigated by means of messages that communicate empowerment (in the case of victims) or moral acceptance (in the case of perpetrators).

To test our model, we will use a validated vignette. Participants (N = 200) will be asked to imagine working for an organization that has committed a moral transgression. Messages of empowerment and acceptance will be manipulated; all other variables will be measured. Our research is in progress and we intend to present our findings at the Psychology Discovery Conference.

Taken together, we aim to advance the Industrial/Organizational Psychology literature by advancing our understanding of the impact of organizational transgressions on employees. Practically, these insights are important for the development of interventions aimed at mitigating the harmful outcomes of organizational transgressions.

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Available during afternoon poster session

Shining Light on the Dark: Exploring the Associations Between the Dark Triad Traits and (Un)Ethical Behaviour via Self-Presentation Concerns

Caitlin Belfiore & Dr. Annika Hillebrandt
Self-interested unethical workplace behaviour (e.g., expense fraud) can have damaging consequences for organizations. One individual difference that is frequently associated with self-interested unethical behaviour is the "Dark Triad," which comprises three antisocial personality traits – Narcissism, Machiavellianism, and Psychopathy. Scholars have typically studied these traits as one construct. However, we are interested in untangling the Dark Triad to gain insight into how each trait is associated with self-interested unethical workplace behaviour and what mediates these effects.

Drawing on socioanalytic theory, we propose that the traits differ in sensitivity to self-presentation concerns (i.e., the degree to which individuals aim to project a moral image of themselves to others). Specifically, we propose that Narcissism is strongly positively associated with self-presentation concerns, whereas Machiavellianism is weakly positively associated with it, and Psychopathy negatively. In turn, these different levels of self-presentation concern are likely to result in differing effects on self-interested unethical behaviour (i.e., Narcissism and Machiavellianism will have negative indirect effects, Psychopathy a positive indirect effect).

This project involves two phases. In Phase 1, we demonstrated an association between the dark triad traits and self-presentation concerns across two studies (N = 120, 204). Phase 2 aims to extend these insights by examining the effects in a controlled environment, using a validated behavioural outcome task designed to measure self-interested unethical behaviour. Ultimately, we contribute to the behavioural ethics literature by providing insight into how the Dark Triad traits uniquely predict unethical behaviour. Practically, we inform the development of interventions aimed to mitigate unethical workplace behaviour.

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Available during afternoon poster session

SOCIAL

A perspective-based investigation of trust rebuilding in romantic relationships

Connery Knox & John K. Rempel

Trust profoundly shapes people's lives: When trust is violated, close relationships, work partnerships, and even political systems fall apart. In romantic relationships, trust forms the basis all sorts of security and, unsurprisingly, when this trust is broken, relationships often undergo extreme stress. Empirically specifying necessary steps and conditions for post-betrayal trust rebuilding can enable couples to recapture well-being benefits linked to high-trust relationships.

To that end, the researchers developed a theory of trust rebuilding in close relationships, and a comprehensive, quantitative measure of theorized factors involved in successful trust rebuilding.

The present study empirically supports this theory using a sample of undergraduate students in close relationships that have survived a betrayal of trust in the past. The novel measure showed strong preliminary reliability, and at the zero-order level, all theorized offender and victim actions were related to trust rebuilding. When controlling for specifics of the relationship and betrayal, commitment from either partner strongly predicted rebuilt trust across victim and offender perspectives, while other factors varied in predictive capability across perspectives.

This study lays the groundwork for future (dyadic) research on trust rebuilding in romantic relationships, offering preliminary validation of the presented theory and a starting point for measurement in future studies. Theoretically and empirically establishing effective romantic relationship trust rebuilding processes not only holds potential for advancing basic research, but also can practically support human flourishing.

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Formality and Functionality as Dimensions in Dress- and Context-Space

Shawn Yee & Neil Hester

Research investigating first impressions has overwhelmingly focused on facial stimuli, with the goal of uncovering psychological universals that serve evolutionary functions. However, another key variable

that influences our first impressions has so far received little attention in academia: dress. Dress is defined as "an assemblage of modifications of the body and/or supplements to the body." (Roach-Higgins & Eicher, 1992). Although dress has been examined in a variety of specific contexts (i.e., sexual selection, status signaling, self-expression), none of these avenues have identified broader dimensions of dress perception in their studies.

To address this gap, we investigate how dimensions of formality (abiding by conventional rules or etiquette) and functionality (serving a particular purpose) explain how people understand both articles of clothing (dress-space) and contexts (locations and/or events; context-space). In Study 1, participants will rate clothing and contexts on formality and functionality, which we hypothesize will be negatively correlated in both dress-space and context-space. In Study 2, participants will rate clothing-context pairs on typicality and socially appropriateness, which we hypothesize will be a function of the distance between an article of clothing in dress-space and the context in context-space.

This research will begin building a conceptual framework for how people understand clothing, contexts, and how they relate to each other. Establishing this framework will support further research exploring the kinds of inferences that are made when others violate their expectations. Data will be collected and analyzed by the time of the conference.

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Upstream vs Downstream Interventions: What do people prefer and why?

Pamela Campos-Ordonez, Jaishish Gurbaksh, & Richard Eibach

Upstream (preventative) models of public health interventions are more effective at mitigating health problems and put less strain on the healthcare system compared to downstream (reactive) models. However, preventative interventions are under-utilized and tend to receive less preferential treatment. The present work investigates psychological factors influencing preferences towards downstream vs. upstream interventions for different socio-health issues (drug abuse, eating disorder, mental health). In 2 within-participant experiments (N = 555), participants read

about a pair of equivalent interventions across 3 health issues (e.g., upstream vs. downstream drug abuse intervention) and decided on budgeting decisions (funding, cutting) and time investment (volunteering). Overall, participants preferred downstream interventions, although pattern of decisions varied within health issue. Interestingly, one facet of empathy was significantly associated with downstream preferences in Study 1 but not Study 2. Implications for the role of empathy and framing of budget questions on preferences are discussed, as well as potential for promoting upstream interventions to the general public.

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Available during morning poster session

Escape from history: There perception of societal extremism and its psychological correlates

Neil Wegenschimmel, Samuel G. B. Johnson, & Igor Grossmann

There is a strong belief that political and social life in the liberal-democratic West are becoming more radicalized. This research probes the dual questions of whether this phenomenon is indeed occurring and if such a perception is linked to a rise in extreme beliefs and a growing receptivity to authoritarianism. The study posits that the perception of societal radicalization across political, social, media, and online domains is correlated with increased openness to extremism and authoritarian tendencies.

Participants are asked if they perceive society as having grown more radical, in what ways, and whether they anticipate this trend will persist. They are also assessed on measures of left-wing and right-wing authoritarianism, political orientation, personal uncertainty, loneliness, and media consumption habits. This project aims to investigate the possibility that, even if society does not exhibit significant changes in observable radicalization measures when compared to the past, the psychological perception of such changes may be driving a real-world upsurge.

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Available during afternoon poster session

Is it my place? Group identity, standing, and expected backlash for confronting discrimination

Jessica Trickey & Hilary B. Bergsieker

Who feels most responsible for challenging discrimination? Reducing discrimination requires involvement from both privileged and marginalized group members. However, the psychological processes underlying allyship—actions taken by members of privileged groups in society to support members of marginalized groups—are not well understood. My research probes two theoretically competing hypotheses regarding bias-confrontation. The psychological standing hypothesis suggests that privileged group members may hesitate to speak out against discrimination, fearing that it is not their place to speak (Sherf et al., 2017; Thai et al., 2021). Conversely, the backlash hypothesis suggests that women and people of colour (vs. men and White people) face costs for identifying discrimination against their ingroup including perceptions that they are “complaining” or “overreacting” (Czopp & Monteith, 2003; Kaiser & Miller, 2001). To reconcile these hypotheses, I differentiate two related but distinct ($r < .6$) components of psychological standing—responsibility to act (e.g., “it is my place to speak up”) and personal relevance of the issue (e.g., “I am personally affected”)—conflated in prior research (Sherf et al., 2017). In a 4 (participant group: women of colour, men of colour, White women, White men) by 2 (discrimination domain: race vs. gender) design, I found that groups had different pathways to anti-bias action through responsibility and relevance. Reinforcing my theorized distinction, responsibility reduced—while relevance increased—expected backlash (e.g., “I will be penalized”), which had in turn predicted lower willingness to take allyship action in my past work (Trickey, 2022). Implications for increasing perceived responsibility for allyship behaviour are discussed.

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Available during afternoon poster session

Embracing Uncertainty: A Wise Approach to Life

Niyati Kachhiyapatel & Igor Grossmann

Uncertainty is an ever-present facet of human life. Be it uncertainty in the context of major life upheavals like a divorce, or smaller daily life events such as a commuting detour due to construction, life is imbued with uncertainty—a disruptive force better to avoid. However, many folk traditions emphasize embracing uncertainty as a wise path to navigating life’s challenges rather than avoiding it. Moreover, central

to models of wisdom are uncertainty-embracing features of meta-cognition such as intellectual humility or open-mindedness to change. Here, we propose to test the nomological network of the naturally occurring appraisals of uncertainty and wisdom-related meta-cognition in reflections on challenging life experiences. We used data from the year-long four-wave-plus-microburst Pathways to Wisdom project. For each wave, a community sample of North Americans from Canada and the US (N = 499) reflected on the most significant adversity from the last 2.5 months and subsequently provided a 9-day diary of most significant events of the day. We observed that appraisals of uncommon event, threatening situation, change in worldviews, and

predictability were positively associated, providing support to the expected nomological network of uncertainty appraisals. Additionally, uncertainty appraisals were positively associated with markers of open-mindedness and intellectual humility suggesting the utilization of wisdom in times of uncertainty. But how do these results vary across situations? In future research, we aim to explore more situational specific questions regarding uncertainty and wisdom. This work has implications for research in decision-making and anxiety.

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Available during afternoon poster session

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Thank you for joining us for our annual departmental Psychology Discovery Conference. A special thank you to those who contributed their research. We received 64 abstract submissions, 58 of which were accepted as posters and 6 of which were accepted as talks. Over 150 people from across the University of Waterloo community registered to attend. Our presenters and attendees included undergraduate students, graduate students, postdoctoral fellows, faculty, staff, and more.

Thank you all for making PDC 2024 a success – here's to discovery!

PDC 2024 Organizing Committee