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Attendee Submitted Thematic Flash Talks: Stress and Psychopathology
Friday, April 27, 2018
8:30 a.m.-9:30 a.m.

Stress and Psychopathology
AN IDIOGRAPHIC APPROACH TO FUTURE AFFECT PREDICTIONS IN DYSPHORIC AND HEALTHY INDIVIDUALS

Allison E. Diamond, Aaron J. Fisher
University of California, Berkeley

Descriptors: affective forecasting, dysphoria, experience sampling

Affective forecasting, the ability to predict how you'll feel in the future, is a key factor in how people make decisions. Studies have shown that the general population is inaccurate in their affective forecasts, yet there is a dearth of research investigating this in dysphoric individuals, whose symptoms are characterized by information processing biases for past and future. This study examined the accuracy of affective forecasting in those with anxiety and depression. Dysphoric (n =76) and control participants (n =35) were recruited based on responses to validated measures. Subjects were surveyed on experienced and predicted affect for three negative and two positive affect items for 21 days. Individual data was subjected to initial analyses to obtain accuracy measures. Five separate mixed-effects logistic regression models were then employed to estimate effects of dysphoric symptoms on forecasting accuracy. Regardless of diagnosis, people were inaccurate forecasters for feeling anxiety, worry, positive, and content (p=0.00). Symptoms of depression impaired accuracy for all negative emotion forecasts (p =0.05, 0.04, 0.02); symptoms of anxiety impaired accuracy for all positive emotion forecasts (p =0.03, 0.03). This study replicates findings in affective forecasting on general inaccuracies and highlights new evidence that depression and anxiety impair forecasting accuracy for negative and positive emotions, respectively. This novel study allows for an understanding of forecasting in real-life, and provides evidence for how dysphoric individuals think about their future.

Stress and Psychopathology
INDIVIDUAL DIFFERENCES IN AFFECTIVE FLEXIBILITY PREDICT ANXIETY AND WORRY

Maud Grol, Eve Twivy, Elaine Fox
University of Oxford

Descriptors: affective flexibility, anxiety, worry

Cognitive flexibility is the ability to shift thoughts according to changing situational demands. Deficits in cognitive flexibility have been associated with anxiety and worry. However, few studies have assessed cognitive flexibility in the context of emotional material, affective flexibility, while anxiety and worry are associated with biased processing of emotional information. Using a prospective design (n = 79), we investigated whether individual differences in affective flexibility predict self-reported anxiety and worry seven weeks later. Affective flexibility was measured using a switching task which requires shifting between categorising emotional stimuli according to an affective rule (valence) or a non-affective rule (number of humans depicted). Poorer flexibility when shifting attention towards processing affective aspects of positive stimuli predicted higher anxiety (beta = .13, probability < .05). Additionally, greater flexibility when shifting away from processing affective aspects of negative stimuli predicted higher anxiety (beta = -.13, probability < .05) and worry (beta = -.15, probability < .05). Whilst previous research mostly focused on biased processing of negative material, the results show that inflexible processing of positive material also plays a role in anxiety. Moreover, the results are in line with models associating anxiety and worry with avoidance of threatening material. Although flexibility is typically viewed as crucial for well-being, greater flexibility may not always be beneficial and this could depend on the emotional context.

Stress and Psychopathology
WHY DO DEPRESSED PEOPLE CHOOSE SAD STIMULI?

Sunkyung Yoon, Edelyn Verona, Robert Schlauch, Sandra Schneider, Van Dang, Jessica Mertz, Nakisa Ghannad, Mary Kleinman, Jonathan Rottenberg
University of South Florida

Descriptors: depression, preference, emotion

Millgram et al. (2015) found that people with major depressive disorder (MDD) tend to choose sad stimuli and interpreted this finding as signifying a maladaptive emotion regulatory goal of wanting to upregulate sad feelings. We examined emotional stimuli choice among those with MDD, compared to individuals without MDD (healthy controls, HC), as well as the reasons for their choices. Seventy six female participants (38 per group) completed two tasks: 1) Milgram et al. (2015)'s music task where participants listened to happy, neutral, and sad music excerpts and chose the one they wanted to listen most. 2) A novel Emotional Music Selection Task (EMST) where participants choose their preferred music clip in paired-choice trials that included multiple intensity levels, as well as a second negative emotion (fear). In the replication music task, MDD persons were more likely to choose sad music. However, the majority of persons with MDD reported that they chose sad music because it was low in emotional intensity (n = 14 out of 21), inconsistent with a motivation to upregulate sadness. EMST results revealed that MDD persons had a stronger preference for low intensity clips (mean = 34.9 choices for the MDD vs. 31.3 for the HC) and sad music (28.2 for the MDD vs. 24.7 for the HC), relative to healthy controls. The current study showed consistent findings of preference for sad music in the MDD across different tasks. However, these choices appear to reflect a desire for low intensity emotional experiences rather than a desire to augment sad feelings.

Stress and Psychopathology
MECHANISMS UNDERLYING THE TRAIT-BASED TENDENCY TO REACT IMPULSIVELY TO EMOTIONS: THE ROLE OF AROUSAL

Jennifer G. Pearlstein[1], Sheri L. Johnson[1], Kiana Modavi[1], Andrew D. Peckham[2], Charles S. Carver[3]
[1]University of California, Berkeley, [2]McLean Hospital, [3]University of Miami

Descriptors: impulsivity, cognitive control, arousal

Objective: Trait-like tendencies toward emotion-related impulsivity are robustly associated with many forms of psychopathology, and have also been tied to deficits in response inhibition. The goal of the present study was to test whether arousal, as measured with pupil dilation, intensifies the emotion-related impulsivity effects on response inhibition. Method: Participants (N = 85) completed a measure of emotion-related impulsivity, underwent a procedure designed to induce a high arousal positive mood state, and then completed a response inhibition task. Pupillometry was measured during the response inhibition task. Results: Generalized linear mixed effect modeling was used to test whether there was an interaction between arousal (pupil dilation) and emotion-related impulsivity in predicting response inhibition performance at a trial-level. As hypothesized, there was a significant interaction between emotion-related impulsivity and arousal, in predicting trial- level response inhibition. Conclusions: Emotion-related impulsivity may be related to more difficulties with response inhibition during moments of high arousal.

Stress and Psychopathology
MOTIVATION TO EXPEND PHYSICAL AND COGNITIVE EFFORT: DISTINCT ROLES IN ANHEDONIA AND PSYCHOSOCIAL FUNCTIONING IN MAJOR DEPRESSIVE DISORDER

Tanya Tran, Amanda Hagan, Gillian MacFarlane, Christopher R. Bowie
Queen's University

Descriptors: effort, psychosocial functioning, depression

Major Depressive Disorder (MDD) is associated with severe functional disability; however the mechanisms of impaired functioning are unknown. Current models of functioning in MDD do not adequately consider amotivation, which has been studied with impaired performance on physically or cognitively-demanding tasks. We evaluated motivation to expend physical and cognitive effort as predictors of psychosocial functioning. Two novel cost-benefit decision-making tasks were developed to assess motivation to expend physical and cognitive effort for reward in 44 MDD and 36 healthy participants. Participants were also assessed with a neuropsychological battery, symptom ratings, and psychosocial functioning. Across tasks, MDD participants made fewer choices to expend high effort for large reward than controls, $F(1,73) = 3.05$, $p = .08$. Increases in anhedonia severity predicted lower motivation to expend physical effort ($b = -0.37$, $p = .03$), but not cognitive effort in the MDD sample. Conversely, lower cognitive effort motivation was associated with greater functional impairment ($b = -.26$, $p = .05$), even after accounting for symptoms and cognitive functioning, $R^2 = .06$, $F(2,34) = 4.08$, $p = .05$. Motivation deficits to date have focused on physical demands. This study is the first to examine the role of cognitive effort avoidance and its unique relationship to psychosocial functioning in MDD. Findings offer novel evidence for attenuated physical and cognitive effort motivation as a contributor to diagnostic clarity of anhedonia and a treatment target for functional recovery, respectively.

Stress and Psychopathology
WHEN WORDS HURT: AFFECTIVE WORD USE IN DAILY NEWS COVERAGE IMPACTS MENTAL HEALTH

Madeleine Devlin[1], Jolie B. Wormwood[1], Yuru Lin[2], Lisa Feldman Barrett[1,3], Karen Quigley[1,4]
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Descriptors: mental health, media reporting, affective tone

Research has shown that the media influences people's self-reported mental health in response to salient aversive events like incidents of mass violence, but little has been done to explore how exposure to news coverage which can vary more subtly in its affective content may impact mental health in people's everyday lives. To explore this, 95 participants completed three waves of testing over a nine-month period. At each wave, participants self-reported the frequency with which they utilized various news sources over the past two weeks. They also self-reported their physical symptoms, anxiety symptoms, and depression symptoms, and completed a potentiated startle task assessing their startle reactivity to aversive stimuli. We then calculated the ratio of words with positive v. negative affective connotations (here, 'affective tone') for every article from the four news outlets used most by our sample. Then, at each wave, we created an average measure of affective tone for each participant using only articles from the outlets they reported using over the past two weeks. Analyses revealed that when individuals were exposed to news coverage with more negative affective tone over the prior two weeks, they reported significantly greater depressive ($B=4.06$, $SE=1.69$; $t(90)=22.40$, $p=.018$) and physical symptoms ($B=4.80$, $SE=1.86$; $t(90)=2.58$, $p=.012$), and exhibited significantly greater startle reactivity to aversive stimuli ($B=6.82$, $SE=3.03$; $t(90)=2.25$, $p=.027$), even when controlling for age, gender, and neuroticism.

Stress and Psychopathology
SHOULD YOU BE READY FOR THE WORST? NEGATIVE EMOTIONAL ANTICIPATION AND REACTIVITY AND RECOVERY FROM A NEGATIVE EVENT

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Descriptors: emotion regulation, emotion dynamics, time

When anticipating important news, people often experience negative emotion. In this research, we investigate the downstream consequences of this emotional anticipation. On the one hand, folk wisdom suggests we should expect the worst to avoid disappointment, and people report "bracing for the worst" as a strategy to avoid future negative feelings (Sweeny et al., 2006). This suggests that feeling negative in anticipation of bad news might serve an emotion regulatory function, preparing one for a negative outcome, and thus facilitating better recovery. On the other hand, research demonstrates that emotion predicts itself over time, and that up-regulating negative emotion is often maladaptive, suggesting that negative emotional anticipation might result in more negative emotional outcomes. To test these competing ideas, we conducted an experience sampling study (N=101). Students completed 10 surveys a day for 2 days before and 7 days after they received their exam results, as well as a follow-up questionnaire 6 months later. Controlling for baseline and trait emotion, we found that higher negative anticipation was associated with greater negative emotional reactivity among those who received bad news, but did not affect those receiving good news (p=.001). Anticipation was also associated with more negative emotion about exam results six months later (p=.020), and particularly among those who received bad news (p=.047). Thus, this study provides initial evidence that negative emotional anticipation results in negative emotional consequences, both in the short- and longer-term.

Stress and Psychopathology
PRENATAL STRESS, ANXIETY, AND SOCIAL SUPPORT PREDICT COUPLES' SUBSEQUENT CHILDBIRTH EXPERIENCES

Darby Saxbe, Mona Khaled, Katie Horton
University of Southern California

Descriptors: childbirth, couples, stress

Childbirth is an important life event that has been understudied within affective science. This study examined prenatal predictors of couples' perceived stress during the birth experience. Within a sample of first-time parents, 51 couples (102 parents) reported on perceived stress, depressive symptoms, pregnancy-specific anxiety, and social support during a prenatal visit conducted between 20-25 weeks of pregnancy. Within 1-2 days of their child's birth, we visited the same couples at the hospital or birth center where the child was delivered and administered the Birth Experiences Questionnaire, a new measure designed to assess subjective stress and partner support during birth. Mothers with higher pregnancy-specific anxiety at the prenatal visit subsequently reported more stressful birth experiences. Mothers also reported more stressful births if both the mother and father reported higher levels of perceived prenatal stress and depressive symptoms, and lower levels of prenatal social support. Birth stress scores were also associated with infant APGAR scores and with couples' negative emotion word usage during an open-ended birth narrative. The birth stress measure also differentiated between parents who had more medically complex births (e.g., labor induction, complications, and C-section delivery) vs. less complex births. This study suggests that birth experiences can be shaped both by pre-existing psychological vulnerabilities and by medical events that occur during childbirth. Childbirth is an emotionally rich experience with implications for family well-being.

Stress and Psychopathology
FACEBOOK USE AND MOOD: WHEN DIGITAL INTERACTION TURNS MALADAPTIVE

Natalia Macrynikola[1,2,3], Regina Miranda[1,2,3]
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Descriptors: social media, mood, young adults

Background: Young adulthood is a vulnerable developmental period. Given that 90% of young Internet users are on Facebook (FB), understanding how FB use affects well-being is key. Experimental and longitudinal evidence suggests that passive FB use (i.e., browsing content) lowers affective well-being, but active FB use (i.e., interacting with peers) has psychosocial benefits. Whether these benefits extend to youth with cognitive and interpersonal vulnerabilities associated with depression, however, remains unknown. The present study examined the impact of two such vulnerabilities – negative interpretation bias (NIB) and unmet belonging needs – on mood after active FB use. Method: A racially diverse sample of 349 college students (mean age = 20) completed self-report measures of NIB, FB use habits, need to belong, actual belonging, and frequency of mood changes after Facebook uses. Results: NIB predicted feeling worse after two types of active FB use: active private (beta = -.17, p < .01) and active public (beta = -.24, p < .01) use. Through NIB, unmet belonging needs were indirectly associated with feeling worse after active private (indirect effect = -.02, 95% CI = -.01,-.04) and active public (indirect effect = -.04, 95% CI = -.02,-.06) use. Discussion: In the presence of NIB, adaptive FB uses may turn maladaptive; unmet belonging needs may activate NIB on FB. This is the first study to examine NIB in the context of FB. Findings inform follow-up research on FB use in real time, with the ultimate goal of protecting vulnerable youth from harmful effects of FB use

Attendee Submitted Thematic Flash Talks: Decision Science
Friday, April 27, 2018
8:30 a.m.-9:30 a.m.

Decision Science
THE EFFECT OF PAIN AND TOUCH ON RISK TAKING DEPENDS ON THE BEHAVIORAL RELEVANCE OF AFFECT

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Descriptors: risk taking, pain, touch

Research on the effect of affect on risk taking has yielded inconsistent results. People in positive (compared to neutral or negative) affect states have more optimistic risk perceptions, but are not necessarily more risk seeking. People in negative affect states have less optimistic risk perceptions, but can be more risk seeking. This study investigates the role of two interdependent mechanisms: affective evaluation and affect regulation. Participants (n = 92) played the hot and cold versions of the Columbia Card Task (CCT), once while receiving painful heat stimulation (negative affect condition), once while being stroked with a soft brush (positive affect condition), and once without any physical stimulation (control). Before they began the task, one-third of participants were told that gambling makes people happy (mood-lifting cue), one-third were told that it makes people sad (mood-threatening cue), and one-third were told that it has no effect on people's moods (mood-freezing cue). Results showed a significant interaction between cue and affect manipulation in the cold CCT, F(4,150) = 2.59, p = .039. As predicted, participants who received a mood-threatening cue were less risk taking in both the positive and negative affect conditions than in the control condition, whereas participants who had received a mood-freezing cue were more risk seeking in the positive than negative affect condition (ps < .05). These findings suggest that affect has different effects on risk taking depending people's beliefs about the affect-regulatory properties of risky behavior.

Decision Science
SELECTIVE EXPOSURE PARTLY RESULTS FROM AN AFFECTIVE FORECASTING ERROR

Charles A. Dorison, Julia A. Minson, Todd Rogers
Harvard Kennedy School

Descriptors: affective forecasting, decision science, social interaction

People selectively expose themselves to political information that aligns with their preferences (Hart et al., 2009), contributing to extremism and polarization and undermining democracy. Four studies (N=2,252) demonstrate that selective exposure is partly caused by an affective forecasting error (Wilson & Gilbert, 2003): political partisans systematically overestimate the extremity of negative affect that will result from exposure to opposing views, and these incorrect predictions drive information consumption choices. In Study 1 (N = 247), Clinton voters overestimated the negative affect they would experience from watching President Trump's Inaugural address, t(221) = 6.75, p < .001. In Study 2 (N = 200), they overestimated the negative affect they would experience from reading statements written by Trump voters, t(179) = -4.89, p < .001. In Study 3 (N = 803), Democrats and Republicans overestimated the negative affect they would experience from listening to an opposing-party Senator, t(322) = 5.98, p < .001. The affective forecasting error was driven by individuals' tendency to underestimate the extent to which (1) they will agree with the views of opponents and (2) they will perceive opponents as possessing positive characteristics. Finally, in Study 4 (N = 1,002), we document how correcting biased affective forecasts can reduce selective exposure. Taken together, our results extend the affective forecasting literature and suggest that if individuals can be educated about affective forecasts, the quality of public discourse and democratic processes can be improved.

Decision Science
WHEN AND WHY PEOPLE MISESTIMATE FUTURE FEELINGS

Zari K. Carpenter[1], Heather C. Lench[1], Linda J. Levine[2], Kenneth Perez[1], Steven J. Carlson[2], Shane W. Bench[3]
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Descriptors: affective forecasts, predictions, decision making

People try to make decisions to improve their lives and happiness using affective forecasts—guesses about how future events will make them feel. Decades of research suggest people are poor at predicting how they will feel and commonly overestimate the impact future events will have on their emotions, however, more recent findings show considerable variability in forecasting accuracy. This investigation moves beyond this debate by testing a new theoretical model differentiating forecasts of emotional intensity, frequency, and effect on mood. Two longitudinal studies tested predictions derived from this theoretical model (students receiving their midterm grade N = 643; citizens about the 2016 U.S. presidential election N = 706). Counter to the prevailing view that people are poor at predicting their emotion, participants' forecasts were relatively accurate for the intensity of emotions, $t(1336) = 2.18$, $p < 0.05$, but overestimated the frequency of emotions, $t(1329) = 14.87$, $p < 0.001$, and the effect of the event on mood, $t(1344) = 9.89$, $p < 0.001$. While forecasting bias for intensity and frequency was stable, bias in forecasting mood increased over time, $t(649) = 7.11$, $p < .01$. In linear regressions and multilevel models, forecasting bias was predicted by misestimating the frequency of thinking about events and by changes in the appraised importance and suprisingness of events over time. Addressing when and why people are accurate in their forecasts is essential, not only for understanding how people think about their futures, but also for intervening to improve decisions.

Decision Science
ARE EXPERIENTIALISTS REALLY HAPPIER THAN MATERIALISTS: A MULTITRAIT-MULTIMETHOD ASSESSMENT

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Descriptors: positive emotion, consumer behavior, experientialism

The Experiential Advantage shows that those who spend money on experiences are happier than those who spend money on material items, but the support has heavily relied on self-report. To address concerns of the robustness of self-report, we conducted 4 studies utilizing a multitrait-multimethod approach with 4 measures of happiness: self-report (S-R), informant-report (I-R), implicit, and sentiment analyses. Study 1 (n = 607) found a positive correlation between S-R experientialism and S-R satisfaction with life (SWL), $r(605) = .21$, $p < .001$ and a negative correlation between S-R materialism and S-R SWL, $r(605) = -.19$, $p < .001$. Study 2 (n = 155) assessed informant-reported happiness and found a positive correlation between S-R experientialism and I-R SWL, $r(153) = .31$, $p < .001$ and a negative correlation between S-R materialism and I-R SWL, $r(153) = -.25$, $p < .01$. Study 3 (n = 569) utilized a happiness implicit association task which found a positive correlation between S-R experientialism and implicit happiness, $r(567) = .09$, $p < .01$ and a negative correlation between S-R materialism and implicit happiness, $r(567) = -.13$, $p < .001$. Study 4 (n = 270) assessed Twitter sentiment using LIWC and WordNet Affect dictionaries. Results showed S-R happiness was negatively correlated with Wordnet's fear category, $r(268) = -.18$, $p < .01$ but positively correlated with the joy category, $r(268) = .13$, $p < .01$. LIWC categories did not reach significance. These results strengthen the robustness of the Experiential Advantage and support assessing happiness through various methodologies.

Decision Science
THE JOY OF PITCHING: EXAMINING HOW THE EMOTION OF JOY PREDICTS PITCHING STATISTICS IN BASEBALL

Hooria Jazaieri, Dacher Keltner
University of California, Berkeley

Descriptors: joy, baseball, analytics

Statistics has been one of the cornerstones of the game of baseball. While the majority of published research on baseball has used a player's on-the-field behaviors in order to predict performance, we sought to examine whether a player's off-the-field responses could predict performance. Prior to the first game of the 2017 season, we interviewed 15 pitchers from a minor league baseball team. In one-on-one interviews, we asked players, "What gives you the greatest joy in playing the game?" and sought to examine whether the emotion of joy would predict any of the 5 key pitching statistics - wins, earned run average (ERA), walks and hits per inning pitched (WHIP), strikeouts, and saves. Regression analyses showed that pitchers who cited the competition between the pitcher and the hitter as being their greatest joy in playing the game had more strikeouts during the season ($R^2 = .32$). Pitchers who cited using baseball as a platform to be a mentor and role model as being their greatest joy in playing the game had more saves during the season ($R^2 = .36$). Finally, pitchers who more generally cited the competition and challenge of the game as being their greatest joy had marginally more wins during the season ($R^2 = .22$). In this sample, joy responses did not predict ERA or WHIP statistics. Data from interviews from another group of pitchers prior to the start of the 2018 season will also be presented. These data provide preliminary evidence for the potential importance of examining positive emotion and off-the-field player responses when looking at player performance.

Decision Science
DISSECTING THE INFLUENCE OF RELATIVELY AND ABSOLUTELY UNFAVOURABLE ENVIRONMENTS ON AFFECT AND DECISION-MAKING

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Descriptors: judgement bias, computational modelling, reward experience

Affect is thought to provide a heuristic for adaptive decision-making but it is unclear what specific information it may convey about the state of the individual's environment. We aimed to investigate which aspects of reward experience alter affect and decision-making, namely the reward prediction error (state of the environment relative to expectation), and average reward rate (absolute state of the environment). 39 participants undertook a judgement bias task where they had to choose between a safe option that provided nothing, and a risky option that resulted in either a monetary reward or loss which fluctuated across trials. We found that participants tended to be more risk-averse (p=0.06), were less happy (p<0.01), and more aroused (p<0.01), a state characteristic of anxiety, in environments that were poor relative to expectation, while absolute state of the environment did not alter affective valence or arousal, or risk aversion. Anxiety-like states and pessimistic decision-making appear to arise from relatively but not absolutely unfavourable environments. We then modelled the decision-making process as a partially observable Markov decision process which we are currently fitting to the data to determine how reward experience influences reward expectation and sensitivity. Thus, we demonstrate that how the environment differs from expectation (prediction error) may be implicated in the emergence of affective states, and provide a novel computational model for investigating judgement bias.

Decision Science
UNCOVERING THE "REAL-TIME" EMOTIONAL EXPERIENCE CONCOMITANTS OF SELF-REPORT USING MACHINE LEARNING

Alex S. Cohen[1], Tovah Cowan[1], Thanh Le[1], Taylor Fedechko[1], Doug Lafield[2], Jianhua Chen[2], Steven Greening[1]
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Descriptors: experience, mechanism, machine learning

Humans possess the ability to reliably quantify their subjective experiences. However, subjective experience is highly dynamic and complex over even brief temporal epochs. The process by which people reduce their experiences to a single data point is poorly understood. For example, a person's estimate of hedonic experience following a meal, movie, social interaction or other event fails to account for the reality that hedonic experience modulates considerably during and after the event. The present study explored this issue by evaluating young adults while they quantified their experiences to brief videos unambiguously positive or negative in valence. Participants rated their experience before and after watching the videos, and continuously (i.e., every 500 ms) using a computer-based "slider". Machine learning (i.e., Decision Tree Learning), for training (n = 64; k = 1,002) and test (n = 53; k = 213) samples, was employed. Over 200 features were extracted from "real-time" experience covering global (e.g., mean rating), event (e.g., peak rating), temporal (time to/at peak), and other domains; which were reduced using Principal Component Analysis and then used to predict post-stimuli experience. Average accuracy rates for predicting post-stimuli positive ratings (84%) were higher than for negative ratings (66%). For both models, mean ratings were the primary predictors. Despite emotional experience being temporally dynamic and complex, people relied almost exclusively on global summary information when quantifying their emotional experience.

Decision Science
THE EFFECTS OF POSITIVE AND NEGATIVE AFFECT ON SUBSEQUENT BEHAVIOR AND COGNITION IN CAPUCHIN MONKEYS

Mackenzie F. Smith, Sarah F. Brosnan
Georgia State University

Descriptors: comparative, cognition

Changes in affective state, both positive and negative, can impact cognition in humans. While we know that acute and chronic stress can influence subsequent behavior and cognition in non-human species, little is known about how minor changes, such as an animals' daily affective fluctuations, may impact subsequent cognition in non-human primates. The current study used a novel methodology to engineer both positive and negative experiences in 15 adult capuchin monkeys. Following the positive or negative experience (or a control condition), subjects' responses to a delayed match-to-sample (DMTS) task were recorded for 30 minutes to assess working memory (6 sessions for each condition). As predicted, performance on the DMTS following the negative experience was poorer than compared to after a positive experience (LMM: b=-0.02, SE=0.01, t=-2.96, p<.01) or the control (b=-0.03, SE=0.01, t=-3.09, p<0.1), but the positive experience did not enhance performance above the control. Behavioral analysis showed increased levels of scratching (a common indicator of stress in non-human primates) after the negative experience compared to both the positive (GLMM: b=0.08, SE=0.03, z=3.03, p<.01) and the control (b=0.09, z=3.10, p<.01). However, the most common behavioral outcome was changes in both the positive and negative condition relative to the control. These findings indicate that a negative affective state, even a minor one, can influence subsequent behavior and cognition in primates, though more work is needed to better understand the role of induced positive affect.

Attendee Submitted Thematic Flash Talks:
Affect and Social Interaction
Friday, April 27, 2018
8:30 a.m.-9:30 a.m.

Affect and Social Interaction
SOCIAL-FUNCTIONAL SMILES: EVIDENCE FROM REVERSE CORRELATION AND MACHINE LEARNING PLATFORMS

Paula M. Niedenthal[1], Jared Martin[1], Adrienne Wood[1], Magdalena Rychlowska[2]
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Descriptors: smiles, social functional theory, machine learning

I present novel data from two paradigms that provide evidence in support of a social-functional theory and classification of the human smile. Niedenthal and colleagues (2010) originally argued that physically distinct smiles could be marshalled to solve three fundamental tasks of social living, including: rewarding the self and others, signaling non-threat in order to foster cooperation, and communicating dominance in the negotiation of social hierarchies. The tasks are not held to be mutually exclusive, nor are the smiles expected to be highly stereotyped or categorical. The social-functional approach acknowledges that facial expressions flexibly adapt to the demands of the social environment. Findings from four research programs support the proposed classification of smiles such that 1) factor-analytic findings from a cross-cultural study uncover three distinct motivations for smiling, which correspond to the three tasks, 2) reverse correlation techniques point to the distinct physical features of three smiles that communicate functionally unique meanings, 3) embeddings computed from the results of input to a machine learning platform represent three smile types, and 4) cortisol and cardiovascular responding during a social stress test show predictable differentiation as a function of the smiles received as evaluative feedback. During the flash talk, I discuss the reverse correlation and machine learning findings. I conclude that distinct forms of the human smile serve the social functions of reinforcement, social smoothing, and social challenge.

Affect and Social Interaction
FACIAL ACTIONS INVOLVED IN THE PRODUCTION OF SOCIAL FUNCTIONAL SMILES: INSIGHTS FROM MACHINE LEARNING AND COMPUTER-ASSISTED FACIAL EXPRESSION ANALYSIS

Jared D. Martin, Adrienne R. Wood, William T. L. Cox, Paula M. Niedenthal
University of Wisconsin-Madison

Descriptors: smiles, social function, machine learning

Theoretical work suggests that smiles may be meaningfully categorized by their social functions: the intentions they convey and the behavioral responses they elicit. Recent research has begun to identify the morphological features that guide perception of smiles' social functions. Perceivers view smiles involving symmetrical zygomaticus major activation as signaling reward, smiles involving "smile control" muscles such as lip pressor as signaling affiliation, and smiles involving asymmetrical zygomaticus major activation as signaling dominance. However, to date, no work addresses whether producers spontaneously involve similar morphological features when intentionally encoding these social functional messages. The present research leverages computer-assisted facial expression analysis alongside modern machine learning to answer this question. Naïve participants (n=122) were asked to produce facial expressions (238 expressions) that conveyed each of three social functions (reward, affiliation, dominance). Our results confirm that not only do producers utilize morphological features similar to those that guide perceivers' understanding of smiles' social functions, but the morphological differences across expression types are sufficiently systematic that machine learning algorithms can successfully classify them (Naïve Bayes, k=.26). Taken together, the present work provides further evidence that smiles can usefully be categorized via their social functions and suggests that perception and production of social functional smiles may be grounded in shared mental representations.

Affect and Social Interaction

THE PRIMACY OF CATEGORIES IN THE RECOGNITION OF 14 EMOTIONS IN SPEECH PROSODY ACROSS TWO CULTURES

Alan Cowen[1], Petri Laukka[2], Hillary Anger Elfenbein[3], Dacher Keltner[1]
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Descriptors: appraisal, expression, culture

Claims about the taxonomy of emotional expression and how it is preserved across cultures are essential to fields ranging from affective neuroscience to computing. New statistical techniques and data collection methods enable us to analyze the structure of emotional expression at an unprecedented cross-cultural scale. Using novel quantitative methods to analyze reports of emotional states reliably recognized in over 2500 lexically identical speech samples, we determine the number of distinct varieties of emotion that are recognized by over a thousand participants in the US and India. The meaning of the emotions expressed by prosody is captured by categorical labels such as "amusement" and "awe", which are more similarly recognized across cultures than dimensions such as valence. While categorical labels are found to organize dimensional appraisals in a coherent and powerful fashion, many categories are linked by smooth gradients that are consistent across cultures, contrary to discrete emotion theories. Our results chart the richness and variety of emotions conveyed nonverbally across cultures by the human voice. To concisely illustrate these findings, we present rich interactive maps of the emotions expressed via prosody.

Affect and Social Interaction

DISTRESS, DISCRIMINATION, AND DEPRESSION: LINKS TO NEURAL RESPONSES FOLLOWING THE 2016 U.S. PRESIDENTIAL ELECTION

Sarah M. Tashjian, Adriana Galván
University of California, Los Angeles

Descriptors: distress, depression, frontostriatal circuitry

Over 876 hate crimes were reported in the first 10 days after the 2016 US presidential election. These crimes were perpetrated against historically marginalized groups. Trauma research indicates dampened response in reward-related circuitry in the brain may be a phenotype of vulnerability to long-term negative outcomes following distressing events. To explore whether manifestations of acute traumatic events extend to shifts in political climate, we investigated election-related distress as a mediator of discrimination-related depression, and tested social support and neural response as moderators. Data for 60 adults (40 marginalized, 20 control, 18-30yrs) were collected within 4 months of the election. Participants performed the monetary incentive delay (MID) task in the scanner to probe reward circuitry. For marginalized, but not control, individuals, election distress partially mediated (p<.001) the relation between discrimination experiences and depression, accounting for 51% of the association. Nucleus accumbens (NAcc) activation and NAcc-medial prefrontal cortex connectivity to feedback and anticipation of reward vs loss significantly moderated the link between election distress and depressive symptoms, as did family support. Robust neural responsivity to reward and greater family support ameliorated links between election distress and depression. These findings shed light on the psychological effects of this important historic event and identify neurobiological and social mechanisms associated with individual differences in response to election distress.

Affect and Social Interaction

SOCIAL INTERACTION ALTERS SELF IDENTITY IN HEALTHY POPULATIONS AND DIFFERENTLY IN PATIENTS

Daina Crafa, Joshua Schiff, Mathieu B. Brodeur
McGill University

Descriptors: self-construal, horizontal learning, Sasta paradigm

Research into the social self demonstrates that individuals with bicultural upbringings (e.g., born in Canada to Chinese parents) have fluid self-identity. This phenomenon has been attributed to the "vertical transmission" of social values through parenting. Such effects have not been widely reported for individuals who have been raised with a single primary cultural context (e.g., born in Canada to Canadian parents), and it has been suggested that they may have a less fluid self-identities or may not have cognitive representations for more than one social values schema. However, these explanations do not fully account for the influence that peer-based social interactions can have on shaping self-identity (i.e., "horizontal transmission" of social values). To test such influences, this project adapted a classic self-construal behavioral priming experiment and performed it as a social interaction in two cohorts: healthy Canadians (N=92) and patients with schizophrenia (N=27), which is a disorder known for social rigidity. Our findings demonstrate that social interaction temporarily alters the self-identities of most healthy individuals, F(2,91)=33.95, p<.001. Patients with schizophrenia were also socially flexible but responded differently to the social interaction procedure compared with matched controls, F(4,200)=3.14, p=.021. These findings demonstrate that even brief interactions may contribute to social learning, even in rigid patient cohorts, thus providing evidence of horizontal transmission of social values during adulthood.

Affect and Social Interaction

WHAT PEOPLE REGARD AS COMPASSIONATE IS SHAPED BY CULTURE AND AVOIDED NEGATIVE AFFECT

Birgit Koopmann-Holm[1], Kathryn Bruchmann[1], Megan Pearson[1], Magdalena Fuchs[2]
[1]Santa Clara University, [2]University of Heidelberg

Descriptors: compassion, culture, avoided negative affect

Receiving emotional support in times of hardship is considered beneficial in many different cultures. However, little is known about the types of emotional support people across different cultures find comforting. When examining how people respond to other's suffering, previous research found that American expressions of sympathy focus more on the positive (e.g., comforting memories) and less on the negative (e.g., the pain of someone's death) than German expressions of sympathy. The degree to which people wanted to avoid feeling negative ("avoided negative affect") partly mediated these differences. Based on this, we predicted that Americans would find support that focuses on the negative less comforting than Germans do because Americans want to avoid negative states more than Germans. In Study 1, 152 Americans and 315 Germans completed measures of avoided affect and rated different sympathy cards. As predicted, Americans found sympathy cards that contained negative content less comforting than Germans did, F(1,462)=39.27, p<.001. Avoided negative affect partially mediated these findings. In Study 2, 68 Americans and 22 Germans selected faces that most resembled a compassionate face using a reverse correlation task. As predicted, the American aggregated face was rated as less negative (it mirrored suffering less) by independent raters than the German aggregated face, F(1,89)=26.16, p<.001. These findings suggest that what people regard as compassionate differs across cultures. This research has implications for grief counselling, which is often organized internationally.

Affect and Social Interaction
CONVERGENCE OF EMOTIONS AND OPINIONS IN SHARED EXPERIENCES

Jin Hyun Cheong, Zainab Molani, Sushmita Sadhukha, Luke J. Chang
Dartmouth College

Descriptors: social interaction, emotion synchrony, shared experience

People frequently choose to share experiences with others, such as eating a meal, watching a movie, or attending a concert or sporting event together. However, it is currently unknown how these social contexts can impact our individual emotional experiences and interpretation of events. To investigate this question, we recruited participants (N=86) to watch four episodes of a 45-minute TV show (Friday Night Lights) alone or with another participant and recorded their facial behaviors while watching the show. After each episode, participants provided impressions of 13 characters on seven dimensions (e.g., liking, annoying, attractiveness). We compared group differences in the average pairwise inter-subject synchrony of facial expressions and intersubject similarity of character impressions. Average inter-subject facial expression synchrony in the shared viewing group (mean r=.14) was greater than the average of the alone viewing group (r=.06 , t(6998)=15.76, p<.001, Cohen's d=.53), and average inter-subject impression similarity was also greater in the shared viewing group (r=.50) than in the alone group (r=.43, t(6998) =7.9, p<.001, d=.3). Higher synchrony in facial expressions between subjects also predicted greater similarity in character impressions (b=.16, t(6993)=5.81, p<.001) suggesting that emoting patterns can be indicative of how impressions are formed. Overall, these results provide a unique account of how shared experiences in social contexts promote a convergence of opinions and impressions about events through increased synchrony in expressions of emotion.

Affect and Social Interaction
ADDITIVE AND INTERACTIVE EFFECTS OF SPECIFIC EMOTION CUES ON EMOTION CATEGORIZATION: FACES, POSTURES, AND SCENES

Eric A. Walle, Peter J. Reschke, Lukas D. Lopez, Jennifer M. Knothe
University of California, Merced

Descriptors: emotion perception, emotional expressions, discrete emotions

Recent research indicates that perception of affective facial expressions is influenced by contextual elements. However, how such influences vary across specific cues and discrete emotions has not be systematically studied. This investigation utilized a fully-crossed design to examine the influence of previously validated facial expressions, bodily postures, and background scenes across discrete emotions (joy, sadness, fear, anger, disgust, and neutral). Participants were instructed to categorize the emotion expressed on the face (Study 1) or the emotion experienced by the actor (Study 2) in each image. In both studies, the majority of participant categorizations corresponded with the facial expression. However, there were also numerous images categorized in accordance with an emotion not present in any individual cue. For example, a fear face placed on a neutral posture in an empty room (i.e., neutral scene) was predominantly categorized as sadness. Additionally, such instances were more prevalent in Study 2, suggesting that explicitly directing participants' attention to the facial expression can suppress the role of non-facial cues in emotion perception. The findings highlight how different emotion-related cues interact in influencing emotion perception and future research including additional emotion-related cues is discussed. Moreover, we advocate that emotion researchers move beyond studying emotion-related cues in isolation or testing which emotion cue is most important, and instead embrace a perspective that views emotion-related cues as inherently inseparable.

Affect and Social Interaction
UNIQUE SAFETY SIGNALS: EXAMINING THE IMPACT OF SOCIAL SUPPORT ON FEAR LEARNING

Erica Hornstein, Kate Haltom, Kanika Shirole, Naomi Eisenberger
University of California, Los Angeles

Descriptors: social support, fear learning, prepared safety

Although research has demonstrated that social support figures belong in the prepared safety category, it is not yet understood how these unique safety signals affect fear learning. Thus, we conducted two studies to evaluate the impact of social support on the processes through which fears are formed (acquisition) and reduced (extinction). First, in a study testing the effect of social support on fear acquisition, participants were shown neutral stimuli paired with an image of a social support figure or stranger and repeatedly presented with mild electric shock. Results demonstrated that while stimuli paired with stranger images could become associated with fear of shock, those paired with social support figure images could not. Next, in a study testing the effect of social support on fear extinction, participants were first trained to associate fear of shock with neutral stimuli and then presented with the now-fearful stimuli paired with an of image of a social support figure or stranger in the absence of shock. Results demonstrated that when presented alone post-procedure, stimuli previously paired with stranger images continued to elicit fear, while those previously paired with social support figure images did not. This pattern persisted even 24-hours later following a procedure designed to reinstate the fear response. These results show that, counter to typical-learned-safety signals, social support stimuli inhibit fear acquisition and enhance fear extinction, suggesting that social support may engage distinct safety pathways and play an important role in reducing fear.

Attendee Submitted Thematic Flash Talks: Developmental Trajectories
Saturday, April 28, 2018
8:45 a.m.-9:45 a.m.

Developmental Trajectories
UNSUPERVISED STATISTICAL LEARNING SHIFTS FACIAL EXPRESSION CATEGORIES IN CHILDREN AND ADULTS

Adrienne Wood, Rista C. Plate, Seth D. Pollak
University of Wisconsin-Madison

Descriptors: emotion perception, statistical learning, facial expression

Facial expressions can convey intentions and future behavior. For instance, an angry face signals possible aggression. Since the human face can produce expressions that range continuously from neutral to angry, people must learn a threshold, or category boundary, at which point they will respond as though the expresser has aggressive intentions. Even infants demonstrate categorical perception of expressions, but it is unclear how they learn category boundaries. The current work explores one candidate learning mechanism, unsupervised statistical learning. Children (n=91, 6-8 yrs) and adults (n=105) inferred the behavioral motivation underlying a facial expression that varied along a neutral-angry dimension. Children and adults similarly adapted to explicit feedback in the first task, converging on a category boundary. In the second, unsupervised phase, participants received no feedback, and, in 2 of the 3 conditions, the distribution of the stimuli shifted (towards the neutral or angry end of the continuum). Both children and adults updated their category boundary in response to shifted distributions, overriding the explicitly-taught category boundary (GLMM, X2(2) = 454.502, p < .001). Suggesting greater categorical precision, adults had more step-wise boundaries than children, which was the only age effect, X2(1) = 27.132, p < .001. Emotion category boundaries are malleable and context-dependent, which is relevant to emotion perception research that relies on categorization tasks. We suggest statistical learning is one way people acquire expression category boundaries.

Developmental Trajectories
DID YOU MEAN TO DO THAT? INFANTS USE EMOTIONAL COMMUNICATION TO INFER AND RESPOND TO OTHERS' GOALS

Peter J. Reschke[1], Eric A. Walle[1], Daniel Dukes[2]
[1]University of California, Merced, [2]University of Geneva

Descriptors: emotion understanding, goal understanding, development

During the second year of life, infants are able to re-enact others' intended actions. However, little is known about the role of emotion in appreciating others' intentions and how this may develop in infancy. This study examined infants' use of others' emotional communication to disambiguate and respond to others' intentions.

Developmental Trajectories
THE AMYGDALA AS A NEUROBIOLOGICAL LINK BETWEEN EARLY ADVERSITY EXPOSURE AND ANXIETY

Jennifer A. Silvers[1], Bonnie Goff[1], Laurel J. Gabard-Durnam[2], Dylan L. Gee[3], Dominic S. Fareri[4], Christina Caldera[1], Nim Tottenham[5]
[1]University of California, Los Angeles, [2]Harvard University, [3]Yale University, [4]Adelphi University, [5]Columbia University

Descriptors: development, adversity, attention

Early adversity is commonly associated with alterations of amygdala circuitry and increased anxiety. While many theoretical and clinical accounts of early adversity suggest that it increases vigilance to threatening stimuli, the present study tested whether heightened anxiety and amygdala reactivity associated with early adversity enhanced goal-directed attention for threatening stimuli. Showing this association would provide support that these adversity-induced alterations are developmental adaptations of the individual. 34 children and adolescents who experienced early adversity in the form of previous institutionalization (PI) (26 female, mean age=13.49 years) and a comparison group of 33 children and adolescents who were reared by their biological parents since birth (16 female, mean age=13.40 years) underwent fMRI scanning while completing a visual search task that involved quickly locating a negative (fearful face) or positive target (happy face) in an array of neutral distractor stimuli (neutral faces). Across both groups, individual differences in vigilant behavior were positively associated with amygdala responses for negative versus positive stimuli. However, a moderation analysis revealed that the degree to which amygdala responses were greater for negative versus positive stimuli was associated with greater anxiety symptomology for PI youth, but not comparison youth. Together, these findings suggest that institutional care strengthens linkages between amygdala reactivity and anxiety, perhaps serving to enhance goal-directed attention.

Developmental Trajectories
REGULATING MORAL EMOTION ACROSS DEVELOPMENT

Chelsea Helion[1], Jennifer A. Silvers[2], Kevin N. Ochsner[1]
[1]Columbia University, [2]University of California, Los Angeles

Descriptors: emotion-regulation, morality, development

Moral situations tend to elicit strong emotions, but when in the life span do they begin to do so, and can those emotions be regulated effectively? To examine this question, we collected both behavioral and neuroimaging data from participants across a wide age-range (n = 116; ages 6-25). Participants completed a cognitive reappraisal task, wherein they were trained on how to use a distancing regulatory strategy to down-regulate negative emotion towards negative moral and non-moral images. We found that younger participants were less able to down-regulate their emotions in negative moral contexts as compared to older participants, but showed no regulatory deficit in negative non-moral contexts. Further, we found that the right dlPFC, a region implicated in exercising cognitive control, tracked moral relevance. We also found that this region showed a positive-to-negative developmental shift in connectivity with the insula (a region implicated in integrating sensory information and affective responding), suggesting that it may be playing a modulatory role in adulthood as compared to childhood. This research indicates that childhood may be a period when individuals are less able to regulate the emotions elicited by moral stimuli, and underscores the importance of emotional reactivity as a key contributor to moral decision-making.

Developmental Trajectories
THE NONLINEAR DEVELOPMENT OF EMOTION DIFFERENTIATION: ADOLESCENCE IS A PERIOD OF LOW EMOTION DIFFERENTIATION

Erik C. Nook[1], Stephanie F. Sasse[1], Hilary K. Lambert[2], Katie A. McLaughlin[2], Leah H. Somerville[1]
[1]Harvard University, [2]University of Washington

Descriptors: emotion differentiation, emotion granularity, development

People vary in how specifically they experience emotions. Some people parse their emotions into very specific types, and others struggle to make such fine-grained distinctions. Although several studies suggest that this ability (called emotion differentiation or emotion granularity) is important to mental health and wellbeing in adults, little is known about its developmental trajectory. In this project, 143 participants aged 5-25 completed a task that assessed their emotion differentiation. Participants observed 20 negative images and rated how strongly each made them feel 5 negative emotions (angry, disgusted, sad, scared, and upset). Intraclass correlations were used to compute each participant's emotion differentiation score. Emotion differentiation showed a significant quadratic trajectory across age (B=.32, p<.001). Emotion differentiation began high in childhood, fell into adolescence, and then rose into young adulthood. Further analyses revealed that the decrease in emotion differentiation from childhood to adolescence was mediated by a decreased tendency to report feeling only one emotion at a time (indirect effect B=-.31, 95% CI=[-.48, -.18]). Hence, children had high emotion differentiation scores because they parsed their affect into only one emotion at a time, and emotion differentiation was low in adolescence because teens struggled to separate co-experienced emotions. Given relations between emotion differentiation and mental health, these results shed light on affective phenomena that may underlie the increased incidence of mental illness in adolescence.

Developmental Trajectories
FORGIVENESS AS A SOCIAL SIGNAL: YOUNG CHILDREN RESPOND FAVORABLY TO THOSE WHO FORGIVE

Janine M. Oostenbroek, Amrisha Vaish
University of Virginia

Descriptors: forgiveness, social emotions, cooperation

Forgiveness helps to repair relationships and thus helps maintain cooperation. Might forgiveness also be a social signal, by signaling to others that the forgiver is a valuable cooperation partner? We propose that displays of forgiveness serve important social functions, similar to displays of other social emotions such as guilt. Children as young as 5 (and more weakly, even 4) years respond positively to displays of guilt. We examined whether they also value displays of forgiveness. 4- and 5-year-olds (n = 20 per age group) watched videos showing a "transgressor" accidentally harming a "victim" and then the victim either forgiving or not forgiving the transgressor. Children then answered questions regarding their evaluations of the victims and distributed resources between them. We hypothesized that 5-year olds (and perhaps even 4-year-olds) would prefer and be more prosocial towards the forgiving than the non-forgiving victim. As predicted, 5-year-olds preferred the forgiver, expected the transgressor to like the forgiver more, and thought the non-forgiver would be more likely to be a transgressor in the future (binomial probabilities, ps < .003). Four-year-olds did not show these effects. However, both 4- and 5-year-olds showed greater prosocial behavior towards the forgiver by distributing more resources to her (ps <.031). By at least 5 years, children value displays of forgiveness in others. From an early age, displays of forgiveness signal key information to others about the forgiving person, and may thus help to repair relationships and promote cooperation.

Developmental Trajectories
INSTRUCTED AND UNINSTRUCTED EMOTION REGULATION CHOICE(S) IN CHILDHOOD: WHAT DO CHILDREN ACTUALLY DO?

Parisa Parsafar, Elizabeth L. Davis
University of California, Riverside

Descriptors: emotion regulation, choice, childhood

Emotion regulation (ER), including the ability to use different strategies, increases in sophistication across childhood. But, the question of what children actually do when instructed to use a certain strategy is unanswered. We used an experimental paradigm to address this gap and examined children's instructed, uninstructed, or multiple strategy use. We gave 184 children (ages 3-11) ER instructions (use cognitive distraction or reappraisal; control) before and after watching an evocative film clip. They self-reported their emotional intensity and later described the ER strategies they used. A significant proportion of children used instructed, uninstructed, and multiple strategies to manage their emotions regardless of condition. Use of an instructed strategy and multiple ER strategies were more frequent when children self-reported greater emotion intensity. The spontaneous strategies children reported varied by age and their instructed strategies. Younger children in the control condition more often reported cognitive distraction, and less often reported a reframing strategy than older children. Older children who endorsed reframing were more likely to report they didn't feel upset than younger children. Compared to children in the control and reappraisal groups, instructed distraction resulted in significantly less spontaneous reports of reframing the situation's outcome. So, ER instructions both interfered with and enhanced children's typical ER. Discussion will highlight our finding's implications for interpreting data from similar experimental paradigms.

Developmental Trajectories
EARLY COGNITIVE AFFECTIVE PREDICTORS OF DEPRESSION ONSET: A LONGITUDINAL STUDY

Charlotte Booth, Annabel Songco, Sam Parsons, Elaine Fox
University of Oxford

Descriptors: depression, adolescents, cognitive

The onset of depression is largely attributed to the period of mid to late adolescence, however relatively little is known about the specific cognitive affective factors that precede depression onset. Negative information processing biases are thought to cause and maintain neuroses, including depression, however most research has been conducted in adults. Anxiety disorders are thought to have an earlier age of onset, which could lead to later depressive episodes, especially if left untreated. We conducted a longitudinal study (CogBIAS-L-S) to investigate the relative importance of information processing biases in attention, interpretation and memory, as well as anxiety factors, including social, separation, general, panic and obsessive-compulsive symptoms in pre-adolescence on depression symptoms in mid-adolescence. 504 adolescents completed testing at Time 1 (age 12) and 449 of the same individuals at Time 2 (age 14). A multiple regression analysis revealed that overall the cognitive affective factors at Time 1 predicted depression severity at Time 2 (Rsquared = .40). Memory bias was the strongest predictor (beta=.31, p<.001) and three anxiety factors were also significant including panic (beta=.21, p<.001), social (beta=.14, p<.01) and general anxiety (beta=.12, p=.02). This study adds to the literature by implicating important early cognitive affective factors that increase risk for depression, which can provide a target for future intervention practices in at-risk adolescents.

Developmental Trajectories
NEURAL BASIS OF ENHANCED EMOTIONAL REACTIVITY IN DYSLEXIA

Virginia E. Sturm[1], Isabel J. Sible[1], Samir Datta[1], Sarah R. Holley[2], Christa Watson[1], Esther Rah[1], Hoeft Fumiko[1], Hendron Robert[1], Bruce L. Miller[1], Maria Luisa Gorno-Tempini[1]
[1]University of California, San Francisco, [2]San Francisco State University

Descriptors: emotional reactivity, emotion regulation, dyslexia

Dyslexia is a neurodevelopmental disorder characterized by prominent reading difficulties and dysfunction in left-hemisphere language systems. We investigated whether left-lateralized reading deficits in dyslexia are accompanied by accentuation of right-lateralized emotion perception and generation systems. We measured emotional reactivity in 21 children with dyslexia and 15 children without dyslexia during a laboratory-based assessment. Participants viewed film clips that elicited negative and positive emotions while their facial behavior and autonomic nervous system activity were monitored. Structural brain MRIs were acquired near the time of testing. Linear mixed effects models revealed significant main effects of diagnosis for emotional facial behavior, $F(1,32)=5.10$, $p=.03$, skin conductance level reactivity, $F(1,28)=4.69$, $p=.04$, and respiration rate reactivity, $F(1,32)=7.46$, $p=.01$, indicating that children with dyslexia had greater facial and autonomic reactivity across the films than children without dyslexia. Voxel-based morphometry analyses showed that greater emotional reactivity was associated with gray matter volume in predominantly right-hemisphere brain regions that support emotion perception (e.g., right fusiform gyrus, $T=4.18$, $praw<.001$) and emotion regulation (e.g., right dorsal anterior insula, $T=5.78$, $pFWE< .05$). These findings offer a neurobiological basis for heightened emotional reactivity in dyslexia.

Attendee Submitted Thematic Flash Talks:
Brain, Body, and Affect
Saturday, April 28, 2018
8:45 a.m.-9:45 a.m.

Brain, Body, and Affect
ENHANCING INTEROCEPTION VIA PERTURBATION OF BRAIN, BODY, AND AFFECT: IMPLICATIONS FOR MENTAL HEALTH

Sahib S. Khalsa
Laureate Institute for Brain Research, University of Tulsa Oxley College of Health Sciences

Interoception refers to the nervous system's sense of the physiological condition of the inner body. Although short and long-term fluctuations of interoceptive signaling have been consistently linked to affective experience and to affective dysregulation, many modern approaches to the human study of brain-body signaling restrict their focus to assessment under physiologically quiescent baseline states. This flash talk will briefly highlight two very different perturbation approaches to enhancing interoception. The first approach, pharmacological perturbation via intravenous adrenergic agonism, simulates the peripheral effect of adrenaline on the body akin to the classical emotion experiments by Maranon, Cannon, Schacter, and Singer. In a recent neuroimaging study we replicated our prior observation of selective activation of the insular cortex, concomitant with increased cardiorespiratory interoceptive awareness and dose-dependent anxiousness. The second approach, non-pharmacological perturbation via reduced environmental stimulation therapy (aka 'Floatation-REST'), systematically attenuates exteroceptive input to the body via immersion into a shallow pool of water saturated with Epsom salt while also minimizing sensory signals from visual, auditory, olfactory, gustatory, thermal, tactile, vestibular, gravitational and proprioceptive channels. In a recent study Floatation-REST induced a state of relaxation and concomitantly increased cardiorespiratory interoceptive awareness in a clinical sample with heightened anxiety sensitivity. Collectively, these two approaches may help to further illuminate the impact of interoceptive perturbations in mental health disorders. In the final minute, an interdisciplinary roadmap for furthering the interoceptive exploration of brain, body, and affective processing (aka the Interoception Summit 2016 white paper) will be introduced.

Brain, Body, and Affect
ENHANCING VMPFC ACTIVATION LEADS TO INCREASED ACCEPTANCE RATES AND DECREASED ANGER REPORTS IN THE ANGER-INFUSED ULTIMATUM GAME – A SIMULTANEOUS TDCS-FMRI STUDY

Gadi Gilam[1,2], Rany Abend[1,3], Guy Gurevitch[1], Alon Erdman[1], Halen Baker[1], Ziv Ben-Zion[1], Talma Hendler[1]
[1]Tel-Aviv Sourasky Medical Center and Tel-Aviv University, [2]Stanford University, [3]National Institute of Mental Health

Descriptors: anger regulation, fMRI, tDCS

Anger experienced during social interactions may lead to aggression and thus requires regulation. In the standard Ultimatum Game (UG), unfair monetary offers by proposers induce anger in responders. Rejection of such offers relates to aggression, whereas acceptance links to anger regulation. The UG may therefore serve as a paradigm to induce interpersonal anger and examine anger coping capabilities. We recently demonstrated that when further infusing anger by interpersonal insults to an UG, vmPFC activation positively associated with acceptance rates and negatively with self-reported anger. Moreover, we demonstrated that anodal tDCS targeting the vmPFC during the experience of negative emotions enhanced vmPFC activation and decreased negative emotions. Here, we tested whether tDCS targeting the vmPFC would increase acceptance of unfair offers and decrease anger. We conducted a double-blind crossover study (N=25) comparing the effects of active vs. sham stimulation inside the MRI while participants played an anger-infused UG. Participants reported their anger before and after the task. Results indicate that active stimulation led to increased acceptance of unfair offers (p=0.05), and mitigated an increase in self-reported anger following the task (p=0.03). Brain analysis revealed increased activation of vmPFC for unfair offers during active vs. sham stimulation (q(FDR)<0.05). Findings suggest a causal link between vmPFC functionality and the experience and expression of anger, providing potential treatment of abnormal anger and aggression in various psychiatric disorders.

Brain, Body, and Affect
THE FUNCTIONAL VALUE OF EMOTION COHERENCE: GREATER COHERENCE BETWEEN PHYSIOLOGY AND SUBJECTIVE EXPERIENCE IS ASSOCIATED WITH GREATER WELL-BEING

Casey L. Brown[1], Natalia Van Doren[2], Brett Q. Ford[3], Iris B. Mauss[1], Jocelyn W. Sze[1], Robert W. Levenson[1]
[1]University of California, Berkeley, [2]Pennsylvania State University, [3]University of Toronto

Descriptors: emotion coherence, well-being, emotion regulation

Emotion theorists have characterized emotions as coherent responses across various response systems (e.g., covariation in subjective experience and physiology across time). Response system coherence is thought to have functional advantages, helping individuals respond effectively to environmental challenges. Yet, very little research has examined the functional implications of coherence. We examined whether coherence between one's subjective experience and physiology during emotion-eliciting film clips was associated with well-being. We also examined two theoretical antecedents of coherence: emotional awareness (thought to increase coherence) and expressive suppression (thought to decrease coherence). Participants (N=63) watched a series of brief film clips that elicited positive and negative emotion. During the films, participants continuously rated their emotional experience using a rating dial, and their physiological responses were recorded. Cross-correlations were used to calculate within-participant coherence between intensity of emotional experience (neutral to intense positive or intense negative) and physiological activation (composite of 7 physiological channels). Individuals with greater coherence reported greater well-being (ß=.30, p=.01), greater emotional awareness (ß =.42, p=.01), and less suppression (ß = -.34, p=.007). Findings provide support for a theoretical assumption about emotion – but one with scant empirical evidence – that coherent emotional responses have functional associations.

Brain, Body, and Affect
NEURAL CORRELATES OF PRODUCING GENUINE AND DISINGENUOUS FACIAL EXPRESSIONS OF EMOTION

Walter C. Williams, Eleanor A. Collier, Jamil Zaki
Stanford University

Descriptors: affective communication, facial expressions, social influence

Audiences can motivate individuals to signal their actual feelings or their desired appearance. Facial expressions in particular reflect individuals' experience of emotion and their goals for communication. We examined the neural systems underlying these two drivers of facial displays. Fifteen pairs of strangers (N = 30) individually viewed and rated their reactions to positive and neutral images under the belief that they were visible to their partner via video camera. At times, participants were incentivized to produce either accurate or inaccurate facial expressions of their feelings (Accurate; Inaccurate). At other times, participants received no incentive and were instructed to react naturally (Null). When participants viewed positive images, they showed greater activity in regions related to motor control (primary and supplementary motor cortices) and emotion processing (ventromedial prefrontal and anterior cingulate cortices, amygdala, and insula) as compared to neutral images (z's > 3.80). However, when participants viewed positive images under the incentive to communicate with observers (Accurate+Inaccurate), they showed increased activity in areas associated with theory of mind (temporoparietal junction and inferior parietal lobule) relative to no incentive (z's > 3.20). Critically, we found similar effects of communicative incentives in these same areas during neutral image-viewing (z's > 4.30). In summary, we find that brain regions involved in mentalizing and experiencing emotion support the production of genuine and disingenuous facial expressions of emotion.

Brain, Body, and Affect
LET'S START AT THE VERY BEGINNING: DATA-DRIVEN INDICES OF PHYSIOLOGICAL RESPONDING UNDER STRESS

Mallory J. Feldman[1], Jolie B. Wormwood[1], Zulqarnain Khan[1], Erika Siegel[2], Spencer K. Lynn[3], Lisa Feldman Barrett[1], Jennifer Dy[1], Karen S. Quigley[1]
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Descriptors: stress, autonomic nervous system, machine-learning

Psychologists study two profiles of biopsychological responding during motivated performance termed "challenge" and "threat." Both of these profiles are characterized by patterns of physiological activity. Individuals experiencing "challenge" exhibit enhanced cardiac output (CO) and contractility (pre-ejection period/PEP) along with decreased total peripheral resistance (TPR). In contrast, individuals experiencing "threat" exhibit similar but more modest changes in CO and PEP along with increases (or minimal change) in TPR. To our knowledge, no research has systematically investigated the potential importance of additional autonomic nervous system (ANS) measures during motivated performance. To address this, we collected multiple ANS measures across two large independent samples during motivated performance tasks. In particular, we included indices unrelated to cardiovascular reactivity (i.e., facial muscle movement, respiration, and electrodermal activity). We then used data-driven machine-learning algorithms to identify individual patterns of ANS activity, and clustered participants based on similarities in these patterns. As expected, two groups of participants emerged displaying patterns of physiological activity consistent with "threat" and "challenge". However, analyses also revealed a relatively large third group of "non-responders" who displayed minimal change from baseline across all ANS measures. This group was most clearly differentiated by a lack of increase in electrodermal activity (average scatter ratio = 1.44). Methodological recommendations are discussed.

Brain, Body, and Affect
FUNCTIONAL CONNECTIVITY OF BILATERAL AMYGDALA AND SUBGENUAL ANTERIOR CINGULATE CORTEX PREDICTS ANHEDONIA AS A FUNCTION OF CD38 GENETIC VARIATION

Benjamin A. Tabak[1], Katherine S. Young[2], Jared B. Torre[2], Lisa J. Burklund[2], Naomi I. Eisenberger[2], Matthew D. Lieberman[2], Michelle G. Craske[2]
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Descriptors: CD38, anhedonia, imaging genetics

CD38 genetic variation has been associated with a variety of social phenotypes such as autism spectrum disorders. Converging evidence has found that rs3796863 A-allele carriers contribute to increased social sensitivity, which may result from CD38's regulation of oxytocin secretion. Recent research found significant gene x environment effects for rs3796863 A-carriers and interpersonal stress at baseline predicted greater social anxiety and depression symptoms over time. The current study builds on this finding by examining, for the first time, how CD38 variation moderates a neural circuit known to be disrupted in depression and social anxiety (i.e., amygdala-subgenual anterior cingulate cortex [sgACC] functional connectivity). Adults (n=72) with varying levels of social anxiety and depression completed assessments of anhedonia and then participated in a standardized emotion processing task (affect matching) while undergoing fMRI. A significant interaction effect was found, F (1, 60)=8.087, p=.006, partial eta-squared =.12, such that among rs3796863 A-allele carriers, decreased amygdala-sgACC functional connectivity was associated with higher levels of anhedonia (specifically, the low-positive emotion factor). Importantly, findings remained unchanged when statistically controlling for general distress. Results suggest that there is an association between amygdala-sgACC connectivity and anhedonia in individuals who carry the more socially sensitive rs3796863 A-allele that does not exist in individuals with the CC genotype.

Brain, Body, and Affect
PSYCHOPHYSIOLOGICAL MEASURES OF NEGATIVE EMOTIONAL RESPONSES PREDICT MORTALITY 10 YEARS LATER

Stacey M. Schaefer[1], Carien M. van Reekum[2], Carol D. Ryff[1], Richard J. Davidson[1]
[1]University of Wisconsin-Madison, [2]University of Reading

Descriptors: affective chronometry, mortality, psychophysiology

Abnormal emotional responses can impair functioning, increasing vulnerability to psychopathology and stress-related disorders. Conversely, optimal emotional response styles may confer some advantage and serve a protective function against stress and disease. In this study, we tested whether psychophysiological measures of emotional responses recorded from 2005-2009 would predict the ultimate outcome ten years later: mortality. As part of the Midlife in the US (MIDUS 2) study, psychophysiological responses to negative, neutral, and positive pictures were measured in 331 participants. Data from those participants who provided good quality data and whose decedent status was able to be determined in 2017 were analyzed with logistic regressions: Deceased = 17 (aged 42-84), Living = 144 (aged 36-79). The change in magnitude measures between emotional reactivity (during the picture) and recovery (after picture offset) of both corrugator electromyography and eyeblink startle responses on negative pictures trials were significant predictors of decedent status. (Responses on neutral and positive picture trials were not.) Moreover, change in eyeblink startle measures on negative picture trials was a significant predictor of mortality status, even when controlling for age, Nagelkerke $R2 = .25$, WALD for eyeblink startle response magnitude negative reactivity-recovery difference = 4.93, p = .03. Even with the small sample, this finding provides critical support for the importance of individual differences in the temporal dynamics of emotional responses for health and wellbeing.

Brain, Body, and Affect
SUPPLEMENTARY MOTOR AREA ACTIVATION AND CORTICOSPINAL TRACT INTEGRITY ARE RELATED TO ALTERATIONS IN STRESS NEUROMODULATORS IN DEPRESSED WOMEN WITH CHILDHOOD EMOTIONAL ABUSE

Carlton P. Frost[1], M. Beth. Meyerand[1], Erin C. Walsh[2], Roxanne M. Hoks[1], Rasmus M. Birn[1], Heather C. Abercrombie[1]
[1]University of Wisconsin-Madison, [2]University of North Carolina at Chapel Hill

Descriptors: emotional abuse, sympathetic nervous system, DTI

Cortisol's effects on memory and neural function are altered in depression. Aversive caregiving alters corticosteroids' effects on neuroplasticity into adulthood, but the neural pathways by which childhood maltreatment alters effects of cortisol on memory bias in depression remain unclear. In a double-blind crossover study, we used fMRI & DTI to assess neural correlates of CORT vs. placebo on memory formation for emotional pictures. Participants were 74 women with varying severity of depression and childhood emotional abuse (EA). We collected salivary alpha-amylase (sAA) to index sympathetic recruitment. For women with severe EA, CORT eliminated the relation between depression severity and memory bias by normalizing recall for pleasant stimuli, $F(2,74)=5.63$, p<.01. These women also showed a related activation increase in supplementary motor area (SMA) in response to CORT, p<.05 corrected. Lastly, CORT normalized group differences in the relation between sAA and fiber integrity in the corticospinal tract (CST), $F(5,74)=4.12$, p<.003. Increasing cortisol signaling may be neurocognitively beneficial in depressed women with history of maltreatment. fMRI and DTI findings converge to suggest that SMA, possibly via CST-bound projections to adrenal medulla, may serve as an interface by which cortisol affects both sympathetic recruitment and memory bias. This interpretation is consistent with anatomical tracing studies in nonhuman primates and findings may represent a developmentally-sensitive pathway by which aversive caregiving moderates relations among stress neuromodulators and cognition.

Brain, Body, and Affect
AFFECTIVE AND SEMANTIC REPRESENTATIONS OF VALENCE

Oksana Itkes, Ruth Kimchi, Hadeel Haj-Ali, Avia Shapiro, Assaf Kron
University of Haifa

Descriptors: valence, knowledge, feelings

We examined the possible dissociation between two representations of valence: affective valence (valence of e emotional response) and semantic valence (stored knowledge about valence of an object or event). In Experiment 1, 50 participants viewed affective pictures that were repeatedly presented while their facial electromyography (EMG) activation and heart rate response were continuously recorded. Half of the participants provided self-report ratings about the valence of their feelings and half about the valence of the stimulus. Next, all participants performed an affective Simon task. In Experiment 2, 30 new participants performed the affective Simon task with the repeated exposure embedded within the task. The results showed that measures related to affective valence (feelings-focused self-reports, heart rate, and facial EMG activations) attenuated with repeated exposure to pleasant and unpleasant pictures, whereas measures related to semantic valence (knowledge-focused self-reports and congruency effect of affective Simon task) did not. These findings strongly suggest that affective and semantic valence represent two distinct psychological constructs.

Attendee Submitted Thematic Flash Talks:
Emotion Regulation
Saturday, April 28, 2018
8:45 a.m.-9:45 a.m.

Emotion Regulation
COGNITIVE REAPPRAISAL OF SNAKE AND SPIDER PICTURES: AN EVENT-RELATED POTENTIALS STUDY

Scarlett B. Horner[1], Sandra J.E. Langeslag[1], Jan W. van Strien[2]
[1]University of Missouri-St. Louis, [2]Erasmus University Rotterdam

Descriptors: cognitive reappraisal, late positive potential (LPP), early posterior negativity (EPN)

Snakes and spiders are predisposed fears and draw people's attention. However, down-regulatory cognitive reappraisal generally decreases fear response. The purpose of this study is to see if cognitive reappraisal has an effect on the late positive potential (LPP) and the early posterior negativity (EPN) while looking at pictures of snakes and spiders. Because the LPP amplitude increases with greater emotion and decreases with less emotion, up-regulation is expected to increase the LPP amplitude and down-regulation is expected to decrease the LPP amplitude. However, because the EPN is considered a more automatic emotional response, cognitive reappraisal is expected to have no effect on the EPN amplitude. Twenty female participants had their EEG measured as they looked at pictures of snakes, spiders, and birds. In the up-regulation condition, participants imagined they were coming across the snakes and spiders. In the down-regulation condition, participants imagined the snakes and spiders could not reach them. Snake and spider pictures elicited greater LPP and EPN amplitudes than bird pictures. The LPP amplitude was smaller in the down-regulate than the up-regulate condition ($p = 0.007$). The EPN amplitude did not significantly change ($p = 0.47$) with emotion regulation, suggesting it is an automatic response, even when emotions are regulated. This supports the idea that even predisposed fears can be regulated and that the EPN reflects an automatic response to an emotional stimulus.

Emotion Regulation
EMOTION REGULATION IN POLITICS: PREDICTING ENGAGEMENT IN COLLECTIVE AND EXPRESSIVE POLITICAL BEHAVIOR

Sara Levens, Cherie D. Maestas, Lonna R. Atkeson
University of North Carolina at Charlotte

Descriptors: emotion regulation, political behavior, social

Transitions of power from one party to another in a democracy creates a unique political context rife with emotions as individuals grapple with the prospect of changes to valued policies. Our research examines how individuals regulate and act on their emotions during the first year following the 2016 election. Drawing upon well-established research on emotion regulation in psychology, we develop a novel theory of how emotion regulation influences collective and expressive socio-political behavior. Using data from a nationally representative survey collected in June 2017 (N=4000), we find evidence that those who rely frequently on regulating their emotions through reappraising the broader meaning of upsetting political news were more likely to engage in collective political active than those who use the strategy less frequently (b=.05, SE=.011) and more likely compared to those who use suppression (b= -.09 SE=.011) or avoidance (b=.004, SE=.009) regulation habits. More importantly, we find that reappraisers are more likely to transmit their views to others via discussion of politics (b=.17 SE=.015) and social media (b=11 SE=.02) thus serving as a source of social contagion of political information. Our findings suggest that emotion regulation habits shape democratic participation and, in the aggregate, determines whose voices are most likely to be heard in the political process. This study contributes to a growing body of research exploring the importance of emotions in fueling socio-political behavior and democratic engagement.

Emotion Regulation
HURTS SO GOOD: PAIN AS A REGULATORY ALTERNATIVE TO REAPPRAISAL AND DISTRACTION

Ashley Doukas[1], Wendy D'Andrea[2], Wesley Gregory[3], Brandon Joachim[2], Vivian Khedari[2], Kellie Lee[2], Gabriella Robinson[4], Greg Siegle[5]
[1]New York University, [2]The New School, [3]Adelphi University, [4]The City University of New York, [5]University of Pittsburgh

Descriptors: pain, emotion regulation, boredom

There are many well-studied ways to cope with negative emotional situations, such as mentally altering the meaning or impact of the situation (reappraisal), distraction, and suppression. Many also use physical pain in everyday negative emotional situations (e.g., getting a hard massage after a stressful week), with little empirical evidence of the value of such behaviors. Here, we consider whether self-administration of pain should be recast as an effective and popularly understood regulation strategy. A diverse sample consisting of 60 community participants completed a study comprised of two quasi-experimental tasks. Task 1 was designed to assess the effectiveness of pain in reducing distress as compared to cognitive coping strategies. Task 2 was designed to examine participants' choice to engage with painful stimuli to up-regulate emotion in the absence of other stimuli or coping options. We show that given the opportunity, most participants will choose to use physical pain to cope with negative affect. In Task 1, 67.5% (n= 37) of participants chose the high-stimulation strategy to cope with negative images. We further show pain to be equally, if not more, effective in coping with negative affect, as compared to cognitive coping strategies (F[2.63, 155.01]= 11.95, p< .001, ?p2= .17). In Task 2, 59.3% (n= 35) elected to receive high stimulation at least once, showing that choice to use pain to regulate varies across different emotional contingencies. These results suggest that self-application of physical pain may be a broadly effective and coping strategy.

Emotion Regulation
IS STRESSING ABOUT STRESS STRESSFUL: REAPPRAISAL MESSES WITH STRESSES FROM COLD PRESSES

Vera E. Newman, Belinda J. Liddell, Denovan Begg, Steven B. Most
University of New South Wales, Sydney

Descriptors: stress, emotion regulation, executive function

Stress is a pressing psychosocial issue encountered often in our daily lives, and results in both physiological stress responses and altered executive abilities. However, an understanding of the moderators of the relationship between stress and task performance is required to disentangle what individual difference factors may (or may not) contribute to stress resilience. We propose that reappraisal may be a key moderator of this relationship. The current series of studies used a well-evidenced psychological/physical stress induction, with cortisol, heart rate, and heart rate variability data collected. To assess the impact of stress on performance, participants completed measures of executive function throughout the study. Study 1 (N=60) demonstrated that trait reappraisal moderated the relationship between stress and cortisol release (p=.007). Study 2 (N=119) contrasted two different instructed reappraisal strategies, demonstrating that perspective taking results in impaired executive performance relative to arousal reappraisal (p=.06) and control instructions (p=.005) following an acute stress induction. These findings may reflect the differential impact of stress on habitual vs goal-directed processes, and indicate that the relationship between stress and performance depends on individual differences in emotion regulation. This demonstrates the importance of investigating contextual variations in emotion regulation, including when these strategies may be adaptive or maladaptive, and raises possible targets for stress resilience and effective psychological interventions.

Emotion Regulation
A DARK SIDE OF REAPPRAISAL: DOWN-REGULATING MORAL EMOTIONS FACILITATES UNETHICAL BEHAVIOR

Brett Q. Ford, Matthew Feinberg
University of Toronto

Descriptors: emotion regulation, reappraisal, morality

Reappraisal is a common and widely-studied emotion regulation strategy with many emotional, psychological, and interpersonal benefits. But can reappraisal also have a dark side? The present research examined the role reappraisal that may play in facilitating unethical behaviors when individuals use it to minimize the moral emotion of guilt. In Study 1 (N=219), participants who reported using reappraisal more frequently to reduce guilt also reported engaging in more unethical behavior (r=.21, p=.002), even when controlling for guilt proneness. In Study 2 (N=290), participants instructed to use reappraisal to reduce incidentally-induced guilt were more likely to cheat in a subsequent unrelated activity compared to control participants (36% of participants cheated versus 23%, respectively, p=.01). In Study 3 (N=245), participants instructed to use reappraisal to reduce guilt while engaging in a dictator game behaved more selfishly toward their partner, keeping more money for themselves compared to those in the control condition (keeping 67% of the money versus 59%, respectively, p=.003). Furthermore, a mediation analysis indicated that those in the reappraisal (versus control) condition behaved more selfishly because they experienced lower levels of guilt. The present findings add to a small but growing body of work suggesting there can be crucial downsides to using reappraisal. Given that moral emotions attune us to our social partners and help us successfully navigate our complex social world, minimizing these moral emotions may have striking social consequences.

Emotion Regulation
IS 'EXPERIENTIAL EMOTION REGULATION' AN EFFECTIVE NEW EMOTION REGULATION STRATEGY?

Marie Vanderkerckhove
Center for Neurosciences

Currently, research findings are generally in favor of cognitive top down strategies, such as cognitive reappraisal (CR) of the stressor. However, as evidence also indicates that the efficacy of reappraisal is not always guaranteed, recently we started with our lab to validate a new- more affective and complementary strategy, which we consider as "experiential emotion regulation". Moreover, despite the interest in the mechanisms that regulates sleep, the relationship between emotion regulation (ER) and sleep, remains a challenging, implicit and thus highly validating domain of research. The question we pose is whether experiential ER can modulate the negative impact of an emotional stress event with effects extending into sleep physiology. Different studies are discussed with 1). Dispositional experiential ER, by high and low 'emotional approach' (EA) (assessed by the EASC, cf. Stanton, 2000), and with 2). Trained experiential ER compared with cognitive analytical processing (CA) and, 3). Trained experiential ER versus cognitive reappraisal (CR) (N=38). Results: 1). Direct comparison of the two dispositions after a failure event revealed that only within the LEA-group more sleep parameters were affected after a failure induction with a longer sleep onset latency, an enhanced latency to slow wave sleep, less % REM-sleep, more arousals, time awake, less total sleep time and sleep efficiency, whereas within the group of a HEA, only REM-% was decreased. 2). The training of experiential ER relative to cognitive analytical processing, on the other hand, resulted in longer sleep time, higher sleep efficiency, fewer awakenings, less % time awake, and fewer minutes wake after sleep onset. For the group trained in analytical ER, differences between the failure and the baseline night were observed with significantly more awakenings and a longer Latency to Slow Wave-Sleep. 3). The group trained in experiential ER resulted in less fragmented and restless sleep when compared with cognitive reappraisal. CR showed reduced sleep efficiency with more time awake, a higher number of rapid eye movements and awakenings during rapid eye movement (REM) sleep and a higher arousal index during sleep. Implications of the differential effects become discussed.

Emotion Regulation
EMOTION REGULATION WITHIN ROMANTIC RELATIONSHIPS: GENDER DIFFERENCES IN THE IMPACT ON MENTAL HEALTH

Sarah R. Holley, Sarah Wagner
San Francisco State University

Descriptors: emotion regulation, mental health, close relationships

The links between emotion regulation strategies (e.g., reappraisal, suppression) and depression within individuals have been well established (e.g., Joorman & Gotlib, 2010). But a person's mood can also be impacted by the regulatory efforts of those around them (e.g., Butler, 2011). Less is known, however, about how emotion regulation efforts impact mental health for a person's romantic partner. The present study sought to advance the literature by looking at the actor and partner effects of reappraisal and suppression on depression within romantic relationships. The study sample consisted of 253 heterosexual couples. All measures were obtained via self-report. Data were analyzed using actor-partner interdependence modeling. Results showed the expected actor effects: for both female and male partners, reappraisal was negatively associated with depression, whereas suppression was positively associated with depression. For partner effects, a gender difference emerged. Female reappraisal was associated with lower depression scores for male partners (beta equals -.16, p less than .01), whereas male suppression was associated with higher depression scores for female partners (beta equals .14, p less than .05). The reverse associations were not significant. Findings are in line with a larger literature indicating a disparity in the "relationship benefit" males receive as compared to females; here, it appears females confer the benefits of effective regulation to their partner's mental health, while suffering greater costs when partners use ineffective regulation strategies.

Emotion Regulation
POOR EMOTION SUPPRESSION IS ASSOCIATED WITH INCREASED ANXIETY IN CAREGIVERS OF PATIENTS WITH DEMENTIA

Jenna L. Wells, Alice Y. Hua, Robert W. Levenson
University of California, Berkeley

Descriptors: caregiver, emotion regulation, anxiety

Caregivers of patients with dementia have high rates of anxiety compared to non-caregiving adults. Importantly, not all caregivers experience anxiety problems, so it is important to identify factors that influence caregiver vulnerability. This study examined the association between emotion regulation measured in the laboratory and self-reported anxiety symptoms in caregivers. 85 caregivers of patients with dementia watched three disgust-eliciting films with instructions to either: (a) "watch" the film; (b) "suppress" their observable emotional reactions; and (c) "amplify" their observable emotional reactions. Caregivers' emotional facial behavior to each film was measured using a well-established behavioral coding system. Caregivers' anxiety symptoms were measured using a well-validated questionnaire. In separate linear regressions, greater emotional expressivity under the "watch" and "suppress" instructions (but not the "amplify" instructions) was associated with greater anxiety. In a regression with both "watch" and "suppress" expressivity as predictors (controlling for age, sex, and patient diagnosis), only greater expressivity in the "suppress" condition was associated with greater anxiety (beta = .21, p = .045). These findings suggest that caregivers who are less able to down-regulate emotion via suppression are at greater risk for experiencing anxiety symptoms. Given the high levels of anxiety experienced by caregivers, it may be useful to evaluate interventions that help improve emotion regulation strategies.

Emotion Regulation

LOOK ON THE BRIGHT SIDE: AFFECTIVE ATTENTIONAL BIAS TRAINING IN DEPRESSION

Stephanie M. Woolridge, Geoff W. Harrison, Mike W. Best, Christopher R. Bowie
Queen's University

Descriptors: depression, attention bias modification, eye tracking

Biased attention to negative information is a mechanism for risk and relapse in depression. Attentional bias modification (ABM) paradigms manipulate attention away from negative information to reduce this bias. The current randomized controlled trial used a novel approach to modifying attentional bias. An eye tracker manipulated stimuli in response to participant's fixations with the goal of preferentially rewarding attention to positive stimuli by obscuring or enhancing image quality of negative and positive stimuli, respectively. Participants with major depressive disorder completed three 35-minute sessions of active (n=17) or sham (n=13) ABM training. Attentional bias, memory for emotional words, and mood were assessed pre- and post-training. Training successfully reduced the negative attentional bias, such that active training participants focused significantly more on positive compared to negative stimuli in a free viewing eye-tracker task (p = .024, partial eta = .17) and were able to identify and disengage from sad information significantly more quickly in a computerized reaction time task (p = .023, partial eta = .17). Participants in the active group also remembered significantly more happy than sad words in an emotional word learning task, indicating a distal transfer of training to emotional memory (p = .027, d = -.61). Training did not significantly affect mood. Future studies should expand upon the sample size and duration of training and explore how training might transfer to improvements in mood.

Hot Topic Session: Emotions and Health
Saturday, April 28, 2018
1:30 p.m.-2:45 p.m.

Hot Topic: Emotions and Health
WHAT DO EMOTIONS HAVE TO DO WITH HEALTH?

Anchor Talk: Annette Stanton
University of California, Los Angeles

A rapidly growing body of research is illuminating the vital role of emotion in engagement in health-promoting and compromising behaviors, health-related decision making, communication in the medical setting, and the impact, management, and outcomes of life-threatening diseases. In this session, Stanton will highlight recent research that illustrates the significance of affective processes in health outcomes, including her lab's experimental and longitudinal investigations of emotional expression in the context of coping with chronic disease and its connections with the physical and psychological health of adults diagnosed with cancer. Although relevant research is burgeoning, many questions remain regarding the links between emotion and health. Stanton will offer questions for consideration by affective scientists to advance understanding and application directed toward the enhancement of physical health and well-being.

Hot Topic: Emotions and Health
FULFILLING SELF-DETERMINATION NEEDS PREDICTS BETTER SLEEP AND LESS WORRY DURING A STRESSFUL PERIOD OF UNCERTAINTY

Kate Sweeny
University of California, Riverside

Research on self-determination theory (SDT) broadly suggests that people have fundamental needs to feel autonomous, competent, and socially connected and that fulfilling these needs is critical for well-being. In the present study, we examined whether fulfilling self-determination needs is associated with physical and psychological well-being while managing the unique stress of awaiting uncertain news. In a study of law graduates (N = 89) during the four months while they awaited their California bar exam results, personal increases in need fulfillment related to temporally congruent reductions in sleep disruption and worry, two key indicators of well-being during waiting periods. In addition, those whose needs were most fulfilled during the waiting period responded less negatively to failing the bar exam, yet need fulfillment during the wait mattered little if one ultimately passed the exam. Together these findings suggest that SDT needs may be a fruitful target for interventions that can protect well-being while people wait and even once their uncertainty is resolved.

Hot Topic: Emotions and Health
AROUSAL MATTERS: THE CRITICAL ROLES OF EMOTION ACTIVATION AND STRESS IN THE POSITIVE AFFECT-HEALTH CONNECTION

Sarah D. Pressman
University of California, Irvine

While the growing evidence of the benefits of positive emotions on physical health is impressive, much of the research continues to take a "one size fits all" approach. That is, researchers assume that all types of positive emotions are beneficial in all types of circumstances and for all types of people. This talk will explore some important nuances of the happiness-health connection, with a focus on the possible role of emotional arousal in predicting when different kinds of positive emotions are helpful versus harmful, especially in the context of psychological stress. Lessons are drawn from an array of research paradigms including naturalistic ambulatory studies, laboratory stress paradigms, and emotion induction experiments.

Hot Topic: Emotions and Health
CAN PATIENT BRAINS BE USED TO PREDICT CAREGIVER HEALTH?

Alice Y. Hua[1], Jenna L. Wells[1], Claudia M. Haase[2], Kuan-Hua Chen[1], Howard J. Rosen[3], Bruce L. Miller[3], Robert W. Levenson[1]
[1]University of California, Berkeley, [2]Northwestern University, [3]University of California, San Francisco

Descriptors: neurodegenerative disease, caregiver health, voxel-based morphometry

Caregivers of patients with dementia and other neurodegenerative diseases have higher rates of mental and physical health problems compared to non-caregiving adults. These poor caregiver outcomes are more closely linked to patient behavioral impairments than cognitive or functional impairments. Because changes in patient behaviors are a result of brain atrophy, we tested whether patient brain atrophy could be used to predict caregivers' health. We examined this relationship in 162 patient-caregiver dyads and assessed the value-added of using patient brain atrophy as a predictor of caregiver health compared to a measure of patients' psychiatric symptoms. Caregivers completed questionnaires about their mental and physical health in close temporal proximity to patients' structural MRI's. Caregivers were also interviewed by clinicians to assess patients' psychiatric symptoms. Results indicated that: (a) smaller patient brain volume in the right ventral anterior insula and superior medial frontal gyrus was associated with worse caregiver mental and physical health (p<.005, uncorrected); and (b) patient brain volume in the right ventral anterior insula and superior medial frontal gyrus improved predictions of poor caregiver mental and physical health above and beyond patient psychiatric symptoms. These findings highlight the promise of the "patient brain to caregiver health" approach for identifying caregivers at heightened risk for adverse health outcomes of caregiving.

Hot Topic: Emotions and Health
RELATIONSHIP CONFLICT INTERACTIONS DURING THE TRANSITION TO PARENTHOOD: IMPLICATIONS FOR BIRTH AND INFANT HEALTH

Mona Khaled, Katie Horton, Hannah Lyden, Sarah Stoycos, Geoff Corner, Darby Saxbe
University of Southern California

Descriptors: dyadic, conflict, birth

Introduction: Despite evidence linking prenatal stress and relationship functioning with birth outcomes, no study has explored associations between prenatal couple conflict behavior and the subsequent birth experience. The current study examined how positive and negative emotion expressed during conflict predicts partners' birth stress and their infants' birth outcomes. Methods: Participants include 49 couples: first-time expectant mothers and fathers. Couples engaged in a conflict discussion during pregnancy, coded for negative and positive affect. Within 24 hours of birth, subjects completed a questionnaire measure of birth stress, and gestational age, birthweight, and infants' Apgar score was collected. Results: If mothers and fathers behaved more positively during prenatal conflict, the baby was more likely to be born full-term (t (41) = 3.64, p = .001; t (41) = 2.25, p = .03; respectively). In contrast, if mothers and fathers behaved more negatively, the labor was more likely to be medically induced (t (41) = -2.66, p = .01; t (41) = -3.50, p = .01; respectively). Mothers' negative conflict behavior predicted their reports of a stressful birth (? = 0.34, p = 0.02), while mothers' positive behavior was linked to fathers' lower birth stress (? = -0.29, p = 0.05). Finally, conflict behavior mediated associations between social support and birth stress (CI= -.73- -.01). Discussion: These results highlight the dyadic nature of the childbirth experience, and suggest that the quality of couples' prenatal relationship can affect their birth stress and gestational outcomes.

Hot Topic: Emotions and Health
REGULATION VERSUS MAINTENANCE? EMOTION PREDICTS ADAPTIVE HEALTH BEHAVIOR IN A COMMUNITY SAMPLE

Karin M. Nylocks[1], Eshkol Rafaeli[2], Eran Bar-Kalifa[3], Karin G. Coifman[1]
[1]Kent State University, [2]Bar Ilan University, [3]Ben-Gurion University of the Negev

Descriptors: emotions, experience sampling, health behaviors

Adaptive behaviors such as exercise and relaxation, are well-demonstrated to provide broad health benefits, yet little is known about how emotion precede and/or influence their use. Broadly, literature suggests that adaptive health behaviors are enacted for the purpose of regulating negative affective experiences. However, other theoretical work suggests that positive affect precedes adaptive health behaviors, serving to maintain positive affective states. We sought to explicitly test the role of within-person fluctuations in negative and positive emotion in future adaptive behavior. Adults (n=56) who were either psychologically healthy (n=22) or diagnosed with Major Depression and/or Social Anxiety Disorder (n=34) completed an in-lab diagnostic interview, followed by a 14-day experience sampling diary measuring within-person fluctuations in positive and negative emotion and health behaviors. Within-person levels of positive affect significantly predicted future positive health behaviors (B=0.12, SE=.04, p=.01). Prior positive behaviors also predicted behaviors reported in the next signal (B=0.13, SE=0.03, p < .001). Additionally, mean positive affect significantly predicted engagement in positive health behaviors (B=0.29, SE=.11, p=.01). There were no significant associations for within-person or mean negative affect, nor group differences. Together, these results support a maintenance model. Given the frequent use of health behaviors in psychological treatments for affective disorders, these results may have important and novel implications for their use during treatment.

POSTER SESSION A
Thursday, April 26, 2018
6:30 p.m.-7:45 p.m.

POSTER A-2

DID VOTERS ACCURATELY PREDICT THEIR EMOTIONAL RESPONSES TO TRUMP? AFFECTIVE FORECASTS OF THE 2016 U.S PRESIDENTIAL ELECTION

Allison S. Troy, David A. Ciuk, Berwood A. Yost
Franklin & Marshall College

Descriptors: affective forecasting, affective polarization, elections

Many individuals over-estimate their emotional responses to future events –an error referred to as the impact bias. However, previous studies suggest that people may be less likely to exhibit the impact bias in the context of elections: long-lasting, emotionally charged contexts that activate group-based identities. Why might this be the case? To examine this question, we analyzed two-wave panel data (pre- and post-2016 U.S. presidential election) collected using a well-established poll of registered voters in a highly polarized swing state (N = 595). A comparison of predicted and actual emotional responses to the election showed high levels of affective polarization and low rates of impact bias – over 50% of the sample was exactly accurate in predicting their future emotional responses. While a past meta-analysis found that individuals tend to over-estimate their emotions to a variety of events (d=0.49), participants in this study, on average, slightly under-estimated their responses to the election (d=-0.24). Furthermore, individuals with strong emotional ties to Hillary Clinton were less likely to experience the impact bias (odds ratio = .51; 95% CI = [.30, .88]; p = .02), while individuals with a strong dislike of both candidates were more likely to experience the impact bias (odds ratio = 7.54; 95% CI = [1.46, 38.86]; p = .02). These results suggest that individuals are quite accurate at predicting their future emotional states in contexts characterized by high levels of affective polarization and inter-group competition.

POSTER A-3

PROSPECTION AND RETROSPECTION ABOUT EMOTION: TOMORROW'S VIVIDNESS TRUMPS YESTERDAY'S ACCURACY

Linda J. Levine[1], Heather C. Lench[2], Steven J. Carlson[1], Craig Stark[1], Zari K. Carpenter[2], Kenneth Perez[2]
[1]University of California, Irvine, [2]Texas A & M University

Descriptors: affective forecasting, memory, emotion

Predicted and remembered emotion guide people's decisions. But how accurate are these different representations of emotion, and how accurate do people perceive them to be? To find out, we compared predicted and remembered responses to an election, holding the interval (3 weeks) constant. Participants (N = 936) reported their predicted (3 weeks pre-election), experienced (2 days post-election), and remembered (3 weeks post-election) emotional response to Trump's election. They also rated the perceived accuracy and phenomenological experience associated with each emotion judgment, and the importance and desirability of Trump's victory. Change over time in the importance and desirability of Trump's victory was associated with greater bias in both predicted and remembered emotion. Predicted emotion was less accurate than remembered emotion; paired t(935) = -6.61, p < .001. Strikingly, however, participants perceived their predictions to be more accurate than their memories, t = 7.96, p < .001, as well as more vivid (t = 6.48), more intense (t = 10.37), and easier to bring to mind (t = 4.83; all p's < .001). Greater perceived accuracy and vividness of predicted emotion was partly explained by diminishing importance as participants adjusted to the election outcome. These findings reveal common sources of bias but marked asymmetries in the cognitive processes associated with predicted and remembered emotion. When predicting emotion, phenomenological cues of vividness and intensity serve as powerful subjective signals of accuracy even when those predictions turn out to be wrong.

POSTER A-4

A MULTIPLICATIVE INCREASE IN SUBJECTIVE VALUATION UNDERLIES BOTH FOOD AND DRUG CRAVING

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Descriptors: subjective states, computational psychiatry, subjective valuation

Craving is a specific desire state that biases choice toward the desired object. Despite its ubiquity and role in addiction and obesity we still lack a basic neurocomputational understanding of craving. In 2 studies, in health and in opioid users in treatment, we test the hypothesis that craving is a specific change in an individual's valuation process. In a novel experimental protocol we specifically test the algorithmic nature of this change. Healthy non-dieters (n=45) were offered 1-8 units at a time of three snack foods. We induced craving for one of the snacks by having subjects interact with the snack while recalling its taste. Because we could not ethically give opioids to recovering users, in study 2 (n=27) we offered instead personalized opioid use-related goods. To capture dynamics in naturally occurring opioid craving patients were studied over 3 d. Subjective valuation for all goods in both studies was quantified repeatedly as a BDM bid. This allowed us to-for each subject, good, and moment-construct a function mapping objective (units offered) to subjective value (relative increase in value/unit). We tested three possible transformations of this function during peak craving: addition, multiplication, and exponentiation. In health, craving induction selectively increased the craved snack's value. In opioid users, opioid craving increased the value of opioid use-related goods. For both, multiplication best captured these increases consistent with a gain control-like process of craving. These findings offer new ways to model craving and other subjective states.

POSTER A-5

HOW DO CHILDREN LEARN NOVEL EMOTION WORDS? A STUDY OF EMOTION CONCEPT ACQUISITION IN PRESCHOOLERS

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Descriptors: emotion development, language, concept acquisition

Understanding emotion words is vital in understanding and communicating emotions. Yet, little work examines how emotion words are acquired by children. Linguistic evidence suggests children learn novel words by using the sentence frame in which the word is presented. Psychological research suggests children use situational context to understand emotion words. We examine the role of both in children's (ages 3–5) perception of novel words denoting emotions. An exploratory archival analysis (Study 1; N=12) examined common sentence structures in adult-child discourse of emotions. We then manipulated linguistic context provided to children. In Study 2 (N=120) children viewed a prerecorded puppet conversation wherein a novel word was presented in one of three sentence frames that varied in how likely the word was to denote an emotion. After each video, children selected an image (depicting an emotion, physical state or action) they believed represented the meaning of the word. With age, children were more likely to choose an emotion or physical state image, F(4,218)=2.61, p=.04 and sentence frame marginally impacted image choice type, F(4,218)=2.01, p=.09. In Study 3 (N=113) situational context was added through cartoons depicting an emotional scenario. We found the predicted 3-way interaction, F(7.47,190.38)=2.49, p=.016, suggesting that emotion images are chosen more to denote a novel adjective when children are older, are given more informative sentence frames, and when situational context implies that an emotion is present.

POSTER A-6

COGNITIVE BIASES AND ADOLESCENT WORRY

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Descriptors: cognitive bias, worry, adolescents

Worry is a common phenomenon in adolescents, yet some young people experience excessive worries that cause significant distress and interference in their daily lives. This pathological worry is a risk factor for the development of anxiety disorders and a range of negative outcomes. Whilst the literature on worry and GAD in adults is well established, there is a relatively small body of research examining the mechanisms underlying the development and maintenance of adolescent worry. The present study investigated how cognitive biases such as attention, interpretation and memory bias are associated with worry in adolescents. Participants were 504 adolescents aged 11 to 14 (mean = 12.9) who completed cognitive processing tasks and self-report measures. This study is part of a three-wave longitudinal study (CogBIAS-L-S) and data presented are from time-point one. The results showed that interpretation bias and memory bias were important information processing biases associated with adolescent worry. Negative interpretations of ambiguous social scenarios (beta = 0.12, p <.05) and non-social scenarios (beta = 0.10, p <.05) were related to high worry, whilst positive interpretations of ambiguous social scenarios were related to low worry (beta = -0.14, p <.05). In addition, negative memory bias was significantly associated with high worry (beta = 0.18, p <.05). A better understanding of how these cognitive biases operate during adolescence has important implications for identifying the mechanisms to target during treatments and early interventions in adolescent populations.

POSTER A-7

ALIGNMENT OF ATTENTIONAL BIAS TO THREAT: A PROOF-OF-PRINCIPLE STUDY

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Descriptors: attention bias, alignment

Attentional bias for threatening stimuli is widely considered a maladaptive process, largely due to its established association with anxiety vulnerability. However, allocating attentional resources to respond to threatening cues that signal a danger that can be avoided or mitigated should promote effective responses. To test the hypothesis that individuals align attentional biases towards threat depending on whether such a bias is adaptive or maladaptive, a novel attentional bias alignment assessment task was developed and tested. We manipulated the control that 160 participants had in avoiding exposure to a danger (loss of money) signalled by a threatening cue. In high control blocks it was adaptive to attend to threat, as participants were highly likely to control avoidance of danger, whereas, in low control blocks it was maladaptive to attend to threat, as the danger was unlikely to be avoided. The results supported our hypothesis, in so far that participants demonstrated greater attentional bias to threat in the high control condition, indexed by reductions on a central task indicating attention was allocated to the periphery where the threat may appear, and reduced attention bias under conditions of low controllability. Participants showed greater attention bias when it was adaptive, and reduced bias when it was maladaptive to do so (p <.001, cohens d = .61). The results provide proof-of-principle for the alignment hypothesis, demonstrating that individuals are capable of aligning their attentional bias depending on its adaptiveness in the current context.

POSTER A-8

BELIEVING YOUR BODY: BELIEFS ABOUT THE VALUE, REGULATION, AND INTENSITY OF BODILY SIGNALS MATTER FOR INTEROCEPTIVE AND EMOTIONAL AWARENESS

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Descriptors: interoception, emotion knowledge, emotional awareness

The body plays a key role in emotion yet little work examines beliefs about the value, regulation, and intensity of bodily signals (e.g., a racing heart) and how such beliefs predict emotional outcomes. We developed a 12-item measure assessing beliefs about bodily signals' value (e.g., My body is a source of wisdom), regulation (e.g., It's important to control my bodily urges), and intensity (e.g., My body is an intense place), and correlated these with interoceptive ability, trait body awareness, emotional clarity, alexithymia, and somatization tendencies (Bagby et al., 1993; Bodena et al., 2011; Mehling et al., 2013; Sogaard & Bech, 2009). Thus, 105 young adults completed an interoceptive heartbeat detection task (Kleckner et al., 2016) and counterbalanced questionnaires. Value and regulation beliefs positively correlated (p=.009) as did value and intensity beliefs (p<.001), but regulation and intensity beliefs were uncorrelated (p=.662). People with more negative value beliefs were more interoceptively accurate and alexithymic (ps=.006, .001), and reported reduced trait body awareness and emotional clarity (ps=.001). People who believed their bodies ought to be regulated were more alexithymic with less emotional clarity and trait body awareness (ps=.026, .031, .001). People who believed that their bodies were intense had greater interoceptive ability, alexithymia, somatization tendencies, and less emotional clarity (ps=.003, .009, .001, .064). Findings provide early evidence that body signal beliefs could play an important role in interoceptive and emotional awareness.

POSTER A-9

DISTINCT NEURAL PATHWAYS FOR ANXIETY: AN APPLICATION OF THE SUBGROUPING GIMME ALGORITHM

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Descriptors: individual differences

Degeneracy refers to the ability of distinct neural pathways to perform similar functions. We hypothesized that in the case of emotion, different neural network activity can produce the same emotional experience across individuals. To test this hypothesis, participants (N = 24) underwent an fMRI experiment in which they listened to unpleasant music and were asked to imagine scenarios from their past experiences that made them feel anxious. We used a data-driven subgrouping algorithm (S-GIMME) to recover two major subgroups of temporal patterns amongst canonical brain networks (salience network, SN; default mode network, DMN; frontoparietal control network, FPC; dorsal attention network, DAN) during experiences of anxiety. Individuals in subgroup A (N=8) had connectivity between the DMN and SN, FPC, and DAN, whereas individuals in subgroup B (N = 4) had connectivity between the FPC, SN and DAN. Critically, consistent with our hypothesis that different patterns can produce the same emotion, subgroups did not differ in the intensity of anxiety (p = .83). However, subgroup A exhibited higher emotional complexity (differentiation) scores on the Range and Differentiation of Emotional Experience Scale (RDEES), t(10) = 1.80, p = .05 (one-tailed), whereas subgroup B experienced marginally more intense negativity during the anxiety induction t(10)= -1.62, p = .07 (one-tailed). These findings provide preliminary evidence for degeneracy in the distributed patterns of brain activation underlying emotional experience.

POSTER A-10

AROUSAL, AWARENESS, OR APPRAISAL? A DOUBLE-BLIND STUDY WITH PROPRANOLOL COMPARING THE RELATIVE ROLES OF SYMPATHETIC ACTIVATION, INTEROCEPTION, AND APPRAISALS IN EMOTION EXPERIENCE

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Descriptors: stress, psychophysiology, interoception

We sought to untangle how sympathetic arousal, interoception, and emotional appraisals may differentially and jointly drive emotional experience, perceptions of somatic sensations during emotion (e.g., heart racing), and interpersonal judgments in an emotional situation. In a double-blind, placebo-controlled between-subjects study, 90 young adults (45% female) received placebo vs. propranolol to block sympathetic activity before completing the Trier Social Stress Test (TSST; Kirshbaum et al.,1993). Immediately after, they rated their appraisals, emotions, somatic sensations, and perceptions of the two neutral interviewers during the TSST. In a prior session, subjects completed a heartbeat task to assess interoception (Kleckner et al., 2016). Multiple regressions showed that negative appraisals were the primary predictor of negative emotions (beta=.302, p=.001), high arousal emotions (beta=.19, p=.007), and negative interpersonal judgments (beta=.23, p=.007), but also interacted with propranolol (beta=.20, p=.026) and interoception (beta=.08, p=.051) to predict high arousal emotions. On the other hand, somatic perceptions were primarily driven by interoception (beta=.15, p=.006). Results are consistent with work on affect misattribution and psychological construction (e.g., Schachter & Singer, 1972; Lindquist & Barrett, 2008), suggesting that although sympathetic reactions and awareness of those reactions may drive perceptions of arousal and somatic sensations, situated appraisals are key for transforming sympathetic arousal into emotions and interpersonal judgments.

POSTER A-11

AFFECTIVE PROCESSING AND BULLYING: ADOLESCENT EMOTION IN CONTEXT

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Descriptors: adolescence, attention, twins

Although affective processes during adolescence are actively investigated, few studies incorporate measures of the social environment. We investigated relations between bullying, peer rejection, and affective processing using the Affective Go-No Go task in 120 adolescent (mean age 15.35 years, SD = 1.76) MZ twins (68 female). Bullying and peer rejection were assessed using adolescent self-reports on the MacArthur Health Behavior Questionnaire, a measure that quantifies various aspects of the quality of their own peer relationships and as well as their cotwins' relationships. We utilized composites created from multiple reporters. Using multilevel modeling, we found that peer rejection correlated with more commission errors of negative words (b = 2.97, F(1, 115) = 5.05, p = .03). Levels of bullying correlated with both commission and omission errors of both negative (b = 7.82, F(1, 115) = 40.33, p < .01 and b = 4.62, F(1, 115) = 11.82, p < .01) and positive stimuli (b = 7.42, F(1, 115) = 36.94, p < .01 and b = 3.91, F(1, 115) = 7.96, p < .01). Levels of bullying also correlated with commission errors of neutral stimuli (b = 6.12, F(1, 115) = 23.42 p < .01). The effect of peer rejection disappeared in a model that included bullying. These results suggest a strong relation between bullying and affective processing, a relationship that may further dysregulate emotional processes during the adolescent period.

POSTER A-12

APPRAISING THAT GOD IS GREAT: EMOTIONAL PREFERENCES IN RELIGION ACROSS 11 SAMPLES

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Descriptors: culture, religion, emotional preferences

Cultures promote emotions that promote the attainment of culturally-valued goals (De Leersnyder, Boiger, & Mesquita, 2013). As a cultural system, religion may similarly increase the desirability of emotions that promote the attainment of religiously-valued goals. Because religion relates humans to presumed super-natural entities, we tested whether religion might increase the desirability of emotions which foster the recognition of humankind's stature relative to more powerful, knowledgeable, or benevolent beings. We identified three emotions that involve appraisals relevant to humankind's relative stature: awe, gratitude, and pride. Awe is experienced when encountering something larger than oneself, and leads to less self-focus (Shiota, Keltner, & Mossman, 2007). Gratitude accompanies the recognition of another's contribution to one's positive outcomes and motivates reciprocation (Algoe & Haidt, 2009). Pride, in contrast to gratitude, accompanies the recognition of one's own abilities and actions to one's socially valued achievements (Tracy & Robins, 2004). We hypothesized that religiosity would be related to greater desirability of awe and gratitude and to lesser desirability of pride. We show that religiosity is linked to stronger preference for awe (ps < .05) and gratitude (ps < .001), and weaker preferences for pride (ps < .001). These effects held when controlling for emotional experience. Moreover, these findings are not explained by broader classes of emotions. These findings demonstrate how religiosity links to preferences for emotions that promote religious values.

POSTER A-13

ASSOCIATION BETWEEN DAILY AFFECT AND NON-EXERCISE PHYSICAL ACTIVITY IN A SAMPLE OF SWISS OLDER ADULTS

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Descriptors: aging, individual differences, physical activity

Previous research has shown a positive association between well-being and physical activity on the between-person level. Most of these studies focused on exercise activity and on a sample of either young or middle-aged adults. However, old age comes with the risk of physical inactivity and little is known about the association between daily affect and daily non-exercise activity of older adults. In this study, we examined how sensor-derived physical activity (e.g., going to the grocery store or doing housework) was associated with emotional well-being on the within-person level in everyday life. Pilot data from the mobility, activity, and social interaction study (MOASIS) consisted of a sample of 27 Swiss healthy older adults (M = 72 years). Daily affect was assessed in an experience sampling approach at the end of each day during 30 consecutive days. Physical activity was continuously measured throughout the day with a three-axes accelerometer worn on the hip. Multilevel modeling results showed that daily positive affect was positively associated with daily sensor-derived physical activity, however, daily negative affect was not affect by physical (in-)activity. Results showed individual differences in the mean levels of daily affect and individual differences in the intraindividual association between daily affect and daily physical activity. Future research should focus on individualized interventions to prevent physical inactivity of older adults.

POSTER A-14

NEURAL RESPONSES TO SOCIAL FEEDBACK AND ASSOCIATIONS WITH SOCIAL BEHAVIOR

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Descriptors: event-related potentials, social feedback, social behavior

Social information is subject to prioritized neural processing, but associations between neural responses to social information and social functioning are not always clear. The present study, therefore, sought to explore the time course of neural responses to social feedback and to identify associations between these responses and social behaviors. We employed a "Survivor"-style task in which participants (n = 172) accepted and rejected, and were accepted and rejected by, computerized "coplayers" while event-related potentials (ERPs) were recorded. "Ally" coplayers were more likely to accept participants, "Enemy" coplayers were more likely to reject participants, and "Unpredictable" coplayers provided pseudorandom feedback throughout the game; however, participants were unaware of coplayer designations. Results demonstrated that multiple ERPs, beginning as early as 125ms, differentiated acceptance and rejection feedback from peers. In addition, greater sustained attention to acceptance feedback, as indexed by the late positive potential, was associated with multiple positive social behaviors in the task, including rewarding Allies, but not Enemies or Unpredictable coplayers, with more accepting votes (r =.19, p = .01) and increased ratings of liking after the coplayers provided acceptance feedback (r = .21, p < .01). This study serves as an important step in linking neural responses to social feedback to specific social behaviors, and may be helpful in understanding how neural responses to social feedback ultimately relate to social functioning.

POSTER A-15

EFFECTS OF TARGETED COGNITIVE TRAINING ON FACIAL AFFECT RECOGNITION IN CLINICAL HIGH RISK FOR PSYCHOSIS

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Descriptors: emotion, psychosis, clinical high-risk

Targeted cognitive training (TCT) as a technique to deter cognitive deterioration in psychiatric disorders, such as psychosis, has shown improvements in some cognitive deficits, but research has largely ignored social cognition. However, previous research from this lab has shown that TCT is effective in improving facial affect recognition in healthy adults. Thus, the current study investigates whether TCT may be a viable method of improving social cognition in persons at clinical high risk for psychosis (CHR). To this end, the cognition of young adults at CHR were randomized to a TCT and control group. Both groups completed two periods of training, separated by a midpoint assessment. The TCT group completed a period of cognitive training and then social cognitive training, while the control group completed two periods of commercial computer games. At pre-, mid-, and post-intervention, a Face Emotion Morph task was conducted, which required participants to identify the emotions on faces that had been manipulated to vary in degree of emotional expressivity by blending emotional and neutral expressions. We hypothesize that those in the TCT group will improve significantly more on the Face Emotion Morph Task than those in the control group. Furthermore, we expect that this improvement will only occur after social cognition training, and not immediately following the cognitive training. This would provide evidence of the efficacy of targeting specific skills using TCT and would suggest that TCT may be a useful tool for targeted prevention of decline in CHR populations.

POSTER A-16

PREDICTING SIMULTANEOUS EMOTIONS WITH MIXTURE MODEL, MULTIVARIATE REGRESSION, AND ARTIFICIAL NEURAL NETWORK

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Descriptors: affective computing, artificial neural network, appraisal theory

A promise of the appraisal theory is to accurately predict emotions, and we aim to test several models that provide quantitative predictions for emotion experiences that better reflect reality, where emotions rarely occur in singular fashion. We compare multivariate regression, conditional mixture model, and artificial neural network (ANN) to predict 17 possible simultaneous emotions based on 7 appraisals. The conditional mixture model is based on a 5-class model for multiple emotion experiences, and the mean emotion ratings from each class are weighted by the class-specific probabilities for a given person to predict emotions. Multivariate regressions, with or without two-way interactions of appraisals, are both trained. In ANN, we specified 10 hidden neurons between the number of appraisal inputs and the number of emotion outputs. With 1700 episodes of appraisals and associated multiple emotion experiences, all rated on a 1-9 Likert scale, we first performed a data split where a quarter was reserved as the testing set. The models trained with three quarters of our sample, when applied to the testing set, yield a root mean squared error (RMSE) averaged across all emotion outcomes of 2.11 for mixture models, 2.10 for neural network, and 2.06 for both versions of multivariate regression. A 10-fold cross validation better assesses the predictive performance of each models by reducing the risk of over-fitting. ANN and multivariate regression with interactions perform comparably, both attaining 2.09 for RMSE averaged across all emotions and across 10 validations.

POSTER A-17

ASSESSING THE RELATION BETWEEN INDIVIDUAL DIFFERENCES IN EXECUTIVE FUNCTIONING AND EMOTION REGULATION STRATEGY CHOICE

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Descriptors: emotion regulation, interference resolution, reappraisal

Implementation of emotion regulation (ER) strategies require varying levels of cognitive control. One ER strategy, reappraisal, requires one to appraise an emotional stimulus, alter the meaning of the appraisal and resolve interference between the new and old appraisals. Reappraisal is effortful and therefore often more difficult to implement under higher cognitive load conditions. Interference resolution is thought to be critical for resolving competing representations, which may facilitate reappraisal. Therefore, the present study aimed to determine if the ability to resolve interference under various cognitive loads is associated with reappraisal choice during an emotion regulation choice (ERC) task. Participants (n=127) completed a dual-task version of the recency-probes (DT-RP) task followed by an ERC task. The DT-RP task required participants to allocate cognitive resources to resolve interference across low and high cognitive load conditions, while the ERC task asked participants to implement either distraction or reappraisal to reduce their reaction to negative images ranging from low to high intensity. A multiple regression analysis controlling for habitual reappraisal use and mood, revealed interference resolution under moderate cognitive load, b= .00, t(119) = -2.29, p < .05, yet not no or low load, predicted reappraisal choice in response to moderate and high intensity negative photos. These findings provide empirical evidence linking executive functions such as interference resolution to reappraisal choice in response to high intensity negative content.

POSTER A-18

THE PERILS OF KEEPING IT IN THE FAMILY: EMOTIONAL REACTIVITY AND DISCRIMINATION IN BISEXUAL ADULTS

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Descriptors: bisexual, reactivity, discrimination

Discrimination against bisexuals occurs both from heterosexuals and from lesbians and gay men. Yet, little experimental work has examined the impact of these different sources of discrimination on the emotional experiences of bisexuals. This is a critical oversight, as higher rates of discrimination against bisexuals have been linked to higher rates of emotional disorders. We examined emotional reactivity in bisexual adults during two novel films depicting anti-bisexual discrimination: one from heterosexuals, one from lesbian and gay individuals. In line with work on in- vs. out-group rejection, we anticipated that discrimination by lesbians/gay men would be associated with greater and longer emotional reactivity compared to discrimination by heterosexuals. 136 bisexuals were recruited online, and viewed the film clips in a counterbalanced order. Participants completed mood ratings before and after watching each clip. We ran a general linear model predicting reactivity with video order and type. There was no difference in reactivity for the videos presented first (p=.54). An interaction between order and type existed such that participants who saw the lesbian/gay film clip first had higher reactivity during the second film clip than those who saw the heterosexual film clip first (p=0.02). This finding highlights the complex impact of different types of discrimination on bisexuals. Further, it provides initial evidence that discrimination type may influence an individual's ability to affectively recover and rally coping resources during a subsequent discriminatory event.

POSTER A-19

IMMEDIATE AND DELAYED EFFECTS OF STRESS ON AFFECT, THREAT SENSITIVITY, AND REWARD PROCESSING

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Descriptors: stress, depression, inflammation

Stress is a well-known precipitant of depression, but our understanding of the psychobiological mechanisms linking the two is incomplete. Acute stress initiates a cascade of physiological and psychological changes, some that arise immediately and some that are relatively delayed. Few studies have tested for delayed effects of acute stress on affective processes relevant to depression. This is notable because the inflammatory response to stress emerges an hour after stressor onset, and inflammation can disrupt mood. Thus, the purpose of this study was to examine immediate and delayed effects of an acute psychosocial laboratory stressor on affect, threat sensitivity, and reward sensitivity in a sample of 98 female undergraduates. Participants were randomized to the Trier Social Stress Task or placebo control, and then completed behavioral tasks assessing reward and threat sensitivity either immediately or 60 minutes later. Across conditions, stressed participants had greater increases in negative affect than controls from pre-to post stress. Positive affect decreased only within the stress-delayed condition, and remained low at 60 minutes post-stressor. Stress/delay participants also exhibited greater attentional bias away from angry faces (b=-28.4, p=.04), and greater decreases in reward sensitivity (b=-.2, p=.047) than control/delay participants. There were no stress related alterations in the immediate condition. This study identified delayed effects of acute stress on affective processes, and helps to further characterize the mechanisms linking stress to depression.

POSTER A-20

CATEGORIZED AFFECTIVE PICTURES DATABASE

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Descriptors: emotional pictures, discrete emotions, categorization

Databases of emotional pictures were first created based on ratings of valence and arousal. The growing interest in studying discrete emotions led to the categorization of emotional pictures. The emotional categorization was based on confidence interval, an analysis method that resulted in high percentages of images that were categorized as blended or undifferentiated. The aim of the current study was to categorize emotional pictures based on agreement levels. Five hundred and twenty-six affective pictures from 4 databases were chosen, and categorization of the pictures to discrete emotions was made in two steps. In Experiment 1, clinical psychologists (N=15) were asked to generate emotional labels to the picture. Ten emotional categories were created based on the results of this experiment. In Experiment 2, the labels were presented to students (N=133), who were asked to choose the emotional category that described the emotion the picture evoked in them. We analyzed the agreement levels on the emotional categories for each picture, and categorized the pictures according to the most dominant emotion they evoked. By using agreement levels, we were able to provide both the most dominant emotional category and the agreement in the population regarding this categorization. In Experiment 3, participants were asked to give ratings of emotional intensity and arousal. This is the first study to provide agreement levels on the categorization of affective pictures, which may be useful in various studies aimed at generating specific emotions.

POSTER A-21

SEDENTARY BEHAVIOUR AND ANXIETY AMONG CHILDREN, ADOLESCENTS AND ADULTS: A SYSTEMATIC REVIEW

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Descriptors: sedentary behaviour, anxiety, systematic review

Background: The systematic review aims at obtaining a comprehensive overview of studies assessing the associations between sedentary behaviors (SB) and indicators of anxiety among children, adolescents, and adults. In particular, the patterns of associations between different SB and anxiety in regard to age and health status of population were investigated.

Methods: The systematic review followed the PRISMA statement (registered at PROSPERO, CRD42017068517). A search was conducted up until Aug 2016 in the following databases: PsycINFO, PsycARTICLES, Academic Search Complete, ERIC, HealthSource: Nursing/Academic Edition and MEDLINE. The review yielded 23 original studies analyzing original data from a total of 52,501 participants. Findings: Results indicated that higher levels of SB are related to higher levels of anxiety observed only in participants from general population. Corroborating evidence was found for the associations between sitting time and anxiety as well as screen time and anxiety (60% and 63% of analyzed associations, respectively). Additionally, obtained evidence indicates a higher likelihood of observing significant associations between SB and anxiety in children and adolescents, comparing to adults (60% vs. 48% of analyzed associations). Overall, the significant associations between subjectively measured SB and risk of anxiety are observed. Future studies with combing of an objective and a subjective measure of SB will be necessary to assess this association, including specific category of anxiety, and determinate causality.

POSTER A-22

FEAR OF PAIN AND CORTISOL REACTIVITY PREDICT THE STRENGTH OF STRESS-INDUCED HYPOALGESIA

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Descriptors: acute stress, pain sensitivity, fear of pain

Acute stress can affect pain sensitivity, yet whether this effect is hypo- or hyperalgesic is inconclusive. Moreover, which part of the multi-faceted stress response is driving the effect is unclear. Here, we examined effects of acute stress on heat pain thresholds and tolerance in healthy participants, taking into account individual differences in stress responses and psychosocial factors. Healthy participants (n=42) were randomly assigned to either a well validated stress paradigm -Maastricht Acute Stress Task (MAST)- or to a non-stressful version of the task. Heat pain thresholds and tolerance levels were assessed at three times: prior to MAST [t0], immediately after the MAST during the sympatho-adrenal-medullary (SAM) response [t55], and 15 minutes after MAST to cover the hypothalamus-pituitary-adrenal (HPA) axis response [t70]. Stress responses were assessed subjectively (self-reports, negative affect) and physiologically (blood pressure, cortisol). We observed that acute stress led to increased heat pain thresholds, an effect that was present only in participants showing a cortisol response following stress induction and only in the HPA axis time window [pain thresholds t70 > t0 and t55, specifically in cortisol-responders, p-corr<.05]. Furthermore, the magnitude of this effect was predicted by delta cortisol increase [b=.33] and fear of pain [b=-.32]. To conclude, these findings reveal specific involvement of the HPA axis system and interactions with pain-related psychosocial aspects, having important implications for clinical states with HPA axis dysfunctions.

POSTER A-23

STRESS MINDSET IN CHILDREN AND YOUNG ADULTS WITH CHRONIC PAIN: A PRELIMINARY INVESTIGATION

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Descriptors: stress mindset, chronic pain, pediatric pain

Recent advances in psychological science are revealing the powerful role of one's stress mindset – the overarching belief that stress is either debilitating or enhancing for human health and performance – on health outcomes. Yet, stress mindset has never been examined within the context of chronic pain, a leading cause of disability worldwide . In this study, forty-six young patients with chronic pain (11-17 years, 83% female) and fourteen healthy controls (11-24 years, 79% female) completed a pediatric version of the Stress Mindset Measure (SMM), with higher scores indicating a stress-is-enhancing mindset. Additional measures assessed pain-specific distress (FOPQ-C), general distress (CDI-2; STAI-C), perceived levels of recent distress (PDS), and functional disability (FDI). Chronic pain patients were significantly more likely to believe that stress is detrimental and debilitating (M = 1.54, SD = .60) than healthy controls (M = 1.94, SD = .65; t(57)=-2.13, p<.05). Amongst patients, a stress-is-debilitating mindset was significantly associated with perceived levels of recent distress (r = -.88, p<0.05), pain-specific distress (r = -.36, p<0.05), and functional disability (r= -.42, p<0.05). Associations with general distress were not significant (STAIC: r = -.43, p=ns, CDI-2: r = -.06, p=ns), suggesting that stress mindset is a unique construct that does not extensively overlap with general mental health in this population. This study presents preliminary support for stress mindset as a distinct and meaningful variable in children and young adults with chronic pain.

POSTER A-24

FUNCTIONAL CONNECTIVITY OF THE VENTRAL ANTERIOR INSULA IS RELATED TO AFFECTIVE REACTIVITY IN RHESUS MACAQUES

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Descriptors: comparative, resting state, nonhuman primate

Computation of affective value and attention to affective stimuli are supported by a broad neural network with a number of key brain hubs including the insula, anterior cingulate cortex (ACC), amygdala, orbitofrontal cortex (OFC), and striatum. In the present study, we evaluated the intrinsic connectivity (IC) between the ventral anterior insula (vAI) and key anatomical hubs in N=19 male rhesus macaques and related variations in IC to behavioral affective reactivity. Monkeys completed a task in which their affective signals to control (e.g., household items) and threat-related (e.g., toy snakes) objects were recorded, yielding an index of behavioral reactivity to each object type. Following Touroutoglou et al. (2016), we placed a seed in vAI and computed voxel-wise BOLD response correlations with the average BOLD response in that seed. We computed each animals' average IC to our ROIs. On average, vAI had significant connectivity to the ACC (r = .20, p = 0.001), amygdala (r = .12, p < .001), OFC (r = .20, p < .001), and striatum (r = .18, p < 0.001). We combined IC to these areas following factor analysis by averaging the r-to-z transformed correlations. The relationship between IC and behavioral affective reactivity differed by stimuli (p = .02). There was no significant association between connectivity and affective reactivity to control stimuli (p = .37). There a trend such that connectivity and reactivity to threat-related stimuli were negatively correlated (p = .08), suggesting that animals with greater vAI IC may exhibit greater behavioral regulation.

POSTER A-25

FEAR LEARNING PRODUCES DIVERGENT GENERALIZATION PATTERNS OF FEAR, AVOIDANCE, AND THREAT PERCEPTION

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Descriptors: fear learning, fMRI, generalization

Individuals learn to fear and avoid stimuli that signal threat. Fear learning can also generalize to new stimuli that are perceptually similar to learned threats. However, it is unclear if distinct components of fear learning such as fear, avoidance, and perceived threat probability generalize differently. In a behavioral study (n = 46, 28 females) and MRI study (n = 21, 12 females), healthy adults (age 18-30) completed a fear learning paradigm. One neutral face (CS+) was paired with an aversive scream (US), whereas another neutral face (CS-) was never paired with the US. After fear learning, participants reported subjective fear, avoidance motivation, and US probability when viewing generalization stimuli, which were created by merging the CS- and CS+ in 10% increments from 0% (CS-) to 100% (CS+) threat. We compared linear increases in subjective responses across generalization stimuli. In both studies, ratings of threat probability, avoidance, and fear exhibited the strongest, moderate, and weakest linear generalization trends, respectively (all comparisons: F > 4.74, p < 0.05). Averaged across stimuli, rating fear and avoidance elicited more activation in the left superior temporal gyrus [21, -14, -36] and right parahippocampal gyrus [-21, -11, -31] compared to threat probability (FWE p < 0.05). Neural activity during fear and avoidance ratings differed in additional regions (e.g., BA 10; FWE p < 0.05). Combined results suggest differences in generalization among fear learning components are due to differences in neural integration of threat and safety information.

POSTER A-26

THE IMPACT OF PRE-SLEEP HAPPINESS ON NEXT-MORNING ENERGY

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Descriptors: pre-sleep affect, happiness, energy

Sometimes we begin the day feeling well-rested and energetic; other times we feel poorly rested and groggy. What predicts this consequential difference? Surprisingly, objective measures of sleep quality show little correlation with morning reports of feeling rested and well-slept (termed "subjective sleep quality"). An emerging literature suggests that pre-sleep affect may be one promising predictor. Using data from a larger study of French-speaking Europeans who answered multiple daily surveys as part of a mood-tracking app, we examined the relation between self-reports of nighttime happiness and next-morning energy (rated from 0-100). We included participants who had rated their happiness between 8PM-2AM and subsequently rated their energy level and reported their sleep duration between 5AM-11AM (n = 1302, 72.6% female, mean age = 30.8 (13-65)). We hypothesized that nighttime happiness would be associated with next-morning energy, even after adjusting for sleep duration and chronotype. Initial analysis using hierarchical linear models suggests that greater nighttime happiness predicts higher ratings of energy the following morning (b = 0.46, SE = 0.02, p < 0.0001), regardless of how long participants slept and whether they rated themselves as morning or evening types. Greater positive pre-sleep affect is correlated with subjective experiences of being energetic following sleep, regardless of sleep duration. Understanding how affect before bed influences sleep outcomes can inform the development of interventions to improve sleep.

POSTER A-27

GENDER DIFFERENCES IN EMOTION REGULATION CHOICE IN RESPONSE TO HIGH INTENSITY NEGATIVE PHOTOS

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Descriptors: emotion regulation choice, gender, reappraisal

The literature surrounding gender differences in emotion regulation in the context of depression is mixed with some studies reporting gender differences while others reporting that emotion regulation strategy use is similarly related to psychopathology in males and females. In the present study, we sought to explore whether undergraduate males and females chose to regulate their emotions differently across stimuli of varying negative intensity. Participants (n=259; 67% female) completed an emotion regulation choice (ERC) task and questionnaires assessing depression and anxiety symptomatology. For the ERC task participants were instructed to choose to implement either distraction or reappraisal to reduce their reaction to low, moderate and high intensity negative stimuli. Results revealed a significant effect of intensity, F(2,510) = 7.358, p<.001, and a significant intensity by gender interaction F(2,510) = 5.158, p<.01. No effects of depression or anxiety on reappraisal choice or gender were found. Follow-up analyses replicate prior findings that rates of reappraisal choice decrease as intensity increases. In addition, results revealed that females chose reappraisal in response to high intensity negative photos significantly less than males t(257) = 2.66 p<.01. These finding suggest that females may find high intensity negative stimuli more effortful to reappraise than males. As reappraisal is a proactive strategy that reduces negative affect, lower levels of reappraisal choice in response to high intensity negative content may contribute to mood dysregulation in females.

POSTER A-28

GENERALIZED AND DOMAIN-SPECIFIC NEURAL REWARD DEFICITS IN DEPRESSION

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Descriptors: depression, reward, ERP

Depression is characterized by reward-related neural dysfunction. A critical gap is that studies have typically only examined responses to monetary rewards, whereas most rewards in daily life are social in nature. It is ambiguous whether attenuated reward sensitivity in depression is domain specific, or a generalized deficit that spans across reward type. We administered two tasks (N=33): 1) a common monetary reward task, and 2) an adapted task to measure social rewards. Of primary interest were event-related potentials (ERPs) evoked by reward cues (cue-P3), approach behavior (contingent negative variation[CNV]), anticipation (stimulus preceding negativity[SPN]), and outcomes (reward positivity [RewP]; feedback-P3 [fb-P3]). Both tasks elicited ERPs with similar scalp topography, latency, and sensitivity to reward conditions. Cross-task ERP effects ranged from small to moderate effects (r's=.15-.44), highlighting latent as well as task-specific variance. In a follow-up study, we administered the same tasks along with a battery of internalizing psychopathology measures (N=100). Analyses indicate that greater ERP amplitudes were linked to greater self-reported reward sensitivity, and that depressive symptoms are associated with reduced SPN (r=.22) and fb-P3 (r=-.22) only for social reward. Blunted SPN during social reward was also linked to more anhedonic (r =.20), negative affective (r=.17), and somatic (r =.26) symptoms. Overall, this pattern suggests that the nature of reward dysfunction in depression may systematically vary by reward type.

POSTER A-29

AFFECTIVE GOALS AND SUBJECTIVE HEALTH: COMPARING ACTUAL, IDEAL, AND AVOIDED AFFECT

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Descriptors: affective goals, affect discrepancies, subjective health

Associations between actual affective experiences and subjective health are well-documented. Recent studies have started to extend this work to affective goals such as ideal and avoided affect, but findings remain limited because of a primary focus on ideal affect and positively valenced emotions. The present study addressed these research gaps by exploring interindividual differences in actual, ideal, avoided affect and their associations with self-rated health across all octants of the affective circumplex. A nationally representative sample of 258 adults aged 18-87 (50% female, 71% non-Hispanic White) rated their ideal, actual, and avoided affect and reported their subjective physical and emotional health. Beyond associations with actual affect, subjective health was significantly associated with aspects of both ideal and ideal and avoided affect (ps < .05). Specifically, smaller ideal/actual affect discrepancies were associated with better emotional health, especially for negative and high-arousal positive affect. In contrast, larger avoided/actual discrepancies were associated with better emotional health but worse physical health, especially for high-arousal negative and low arousal affect. Exploratory analyses examined the role of demographic factors and ideal/avoided discrepancies. Implications for the role of affective goals in physical and emotional well-being are discussed.

POSTER A-30

EFFECTS OF OXYTOCIN ON INTRINSIC BRAIN CONNECTIVITY MECHANISMS RELATED TO THREAT ARE MODULATED BY PARENTAL OVERPROTECTION AND WARMTH

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Descriptors: oxytocin, fMRI, threat

Oxytocin plays a critical role in both parent-child attachment and affective regulation. However, the neural systems underlying oxytocin's unique effects on threat related processes have not yet been fully investigated. A specific neural system known to mediate negative affect is the circuitry linking the dorsomedial prefrontal cortex (DMPFC) and amygdala, a so called "aversive amplification circuit." To test whether oxytocin and attachment processes interact to modulate this affect regulatory mechanism, we conducted a resting-state fMRI study and analyzed functional coupling between these brain regions in healthy adults administered either intranasal oxytocin or placebo spray. In response to oxytocin, individuals who experienced early life overprotection from their parents showed greater connectivity in the DMPFC-amygdala circuit, likely indicating heightened threat sensitivity. Individuals with less overprotective parenting showed weaker neural coupling, likely indicating less threat sensitivity following oxytocin administration. These results highlight the long-lasting effects of parenting style on oxytocin-mediated affect regulation and underlying neural substrates.

POSTER A-31

SOCIAL ANXIETY AND ATTENTION DISENGAGEMENT FROM THREAT: A TEMPORAL DYNAMICS APPROACH

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Descriptors: attention disengagement, attention bias, social anxiety

Research has demonstrated threat-related attentional biases in anxiety disorders. However, mechanisms remain unclear and inconsistent findings have emerged regarding the direction and magnitude of bias. Additionally, anxious individuals may show difficulty disengaging attention from threat (Fox et al., 2001, 2002). We aimed to investigate the nature of attention disengagement from threat in social anxiety using a temporal dynamics analytic approach that examines trial-level bias scores (TLBSs; Zvielli et al., 2015). Zvielli et al (2015) found that TLBS indices predicted spider phobia diagnosis over and above mean bias score. In the current study, participants completed a spatial cueing task with neutral and threatening facial stimuli. Structural equation modeling (EQS; Bentler & Wu, 1995) was used to generate two latent variables for attention bias and social anxiety. Attention bias indicators were mean TLBS, peak negative TLBS, and variability in TLBS (degree of stability in attention disengagement from threat over time). Social anxiety indicators were scores on three self-report measures. Our model was a good fit for the data, evidenced by the non-significant chi-square statistic of 11.12 and cumulative fit index of .99. Indicators were strongly correlated with associated latent variables; however, attention bias and social anxiety shared a weak correlation of .135. Results suggest a need for further research to elucidate the nature of the association between social anxiety and attention disengagement, and critical variables that may moderate this association.

POSTER A-32

REWARDING IMAGES DO NOT INVOKE THE REWARD POSITIVITY: THEY INFLATE IT

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Descriptors: reward, ERP, emotional pictures

Research investigating reward related phenomena in the brain have elucidated numerous signals related to reward processing. One such reward-processing signal observed in EEG imaging studies is the reward positivity. Multiple lines of evidence suggest that the reward positivity conforms to an axiomatic reward prediction error – that is, it closely follows the rule-like encoding of surprising reinforcers. However, a major limitation in these EEG studies is the over-reliance on a single class of secondary rewards like points or money, constraining dimensionality and limiting generalizability. In the current suite of studies we address this limitation by leveraging a different class of rewarding outcomes: emotionally pleasant pictures. Over a series of two experiments, participants were able to choose idiosyncratically preferred pictures as rewards. During the first experiment, participants were rewarded with either high or low points, or high or low preferred pictures. The reward positivity was modulated by points, but not by pictures (regardless of preference), which instead evoked enhanced N2 amplitudes. In a second study that paired high/low points and preferred/non-preferred pictures, the point-induced reward positivity was inflated by the presence of a preferred, emotionally-pleasant picture. In line with past research stating the reward positivity is primarily sensitive to positive reward prediction error, this report finds that it is also influenced by a liking dimension, which possibly acts as an affective state to frame the motivational aspect of extrinsic rewards.

POSTER A-34

EMOTION REGULATION VIA THE AUTONOMIC NERVOUS SYSTEM IN CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD): REPLICATION AND EXTENSION

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Descriptors: ADHD, emotion regulation, autonomic nervous system

Attention-deficit/hyperactivity disorder (ADHD) is a prevalent disorder characterized by symptoms of inattention, hyperactivity, and/or impulsivity, as well as executive dysfunction. Recent work underlines the importance in understanding the role of emotion reactivity and regulatory deficits in the context of the disorder. One study (Musser et al., 2011) utilized a positive and negative emotion induction and suppression task, as well as indexes of autonomic nervous system reactivity, to examine emotional functioning in youth with ADHD. This study revealed inflexible parasympathetic-based regulation across emotion conditions among youth with ADHD compared to typically developing youth. The present study sought to replicate and extend these findings to a clinically recruited, diverse sample, while also examining sympathetic functioning. 259 participants (160 youth with ADHD), aged 5 to 13, completed the task utilized in Musser et al. (2011), while indexes of parasympathetic (respiratory sinus arrhythmia [RSA]) and sympathetic (pre-ejection period [PEP]; electrodermal activity [EDA]) reactivity were obtained. ADHD was associated with significantly elevated parasympathetic (i.e., augmented RSA) and sympathetic (mean skin conductance) reactivity. Overall, results replicate and extend Musser et al. (2011) revealing sympathetic-linked disruptions in emotion reactivity and parasympathetic-linked disruptions in emotion regulation in youth with ADHD. Future studies of behavioral therapies for ADHD should consider the efficacy of adding an emotion regulation skills training component.

POSTER A-35

UP-REGULATION OF POSITIVE EMOTIONS IN FMRI AND EXPERIENCE SAMPLING

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Descriptors: emotion regulation, positive emotions, up-regulation

The successful regulation of our emotions, which is the process by which individuals influence the intensity, duration, and type of their emotions, is crucial for our well-being. While neuroimaging studies have associated brain regions with the down-regulation of negative emotions, the neural circuitry underlying the up-regulation of positive emotions is poorly understood. Moreover, it remains unclear, how such brain findings are associated with real-world emotional responses. We acquired fMRI data from 63 young healthy participants (20-25 years) while they either voluntarily up-regulated or passively watched positive or neutral photos. The same participants used smartphones in an experience sampling phase for 10 days (60 occasions) to measure emotion regulation in daily life. We found increased positive affect for positive pictures and increased activity in the striatum during up-regulation, irrespective of stimulus valence. This striatal activity, however, was not associated with an increased up-regulation of positive emotions in real-life situations. These results suggest a divergence between the effect of instructed emotion regulation in the laboratory and emotion regulation in a naturalistic setting.

POSTER A-36

EMOTIONS INSIDE OUT: HOW WORLD- VS. SELF-FOCUSED EMOTION IMPACTS ACTION AND EXPERIENCE

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Descriptors: emotion perception, world-focused emotion, self-focused emotion

World-focused emotions are experienced as perceptions of external properties in objects (e.g., seeing threat), whereas self-focused emotions are experienced as internal states (e.g., feeling afraid; Lambie & Marcel, 2002). Because world-focused emotions involve seeing objects as threatening, we predicted that manipulating world-focused experiences of fear would cause participants to have a lower detection threshold for fearful objects than experiences of self-focused fear. Participants (N = 205) completed a judgment task in which they saw high intensity fear, low intensity fear, and neutral images. In one block, participants made world-focused judgments about the stimuli ("Frightening vs. Not frightening"). In another block, participants made self-focused judgments ("I am frightened" vs. "I am not frightened"). We found that participants making world-focused (vs. self-focused) judgments responded faster to high-intensity fear images, F (1, 191) = 4.63, p = .03, and marginally so for low intensity fear images, F (1, 192) = 2.06, p = .09. We also found that participants were more likely to judge high fear, F (1, 204) = 17.73, p < .001, and low fear images F (1, 204) = 15.01, p < .001, as "Frightening" vs. "I am frightened." Thus, participants may more readily react to and experience world-focused vs. self-focused emotions. Our research is among the first to provide evidence that emotions may be world-focused vs. self-focused and that this distinction has implications for how an emotion is experienced and how perceivers may respond to an experience of emotion.

POSTER A-37

AFFECTIVE INTEGRATION: SUBJECTIVE AFFECTIVE STATE AS A FUNCTION OF INTEGRATED SENSORY INFORMATION AND PRIOR AFFECT

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Descriptors: core affect, information integration

Understanding how affective states are formed as a function of integrated information is arguably required for making progress in understanding affective experience and the role of affect in behavior. Here, we investigated the mental calculus behind the integration of affective information and fluctuations in core affect. In four studies, participants (N=213), in each trial, viewed a number of images in a sequence and reported their momentary valence and arousal. We varied number (4 or 6) and duration (2s or 4s) of images in different studies. In two studies (N=119), positive and negative images were presented in separate blocks (blocked-valence), while in others (N=94), images were presented randomly (mixed-valence). We predicted current affect (i.e. valence and arousal) as a function of normative image ratings and prior affect (measured in the previous trial). Group-level analyses revealed an averaging mechanism for affective integration that assigns higher weights to potentially more affective and recently represented sensory input. Critically, affective averaging of sensory information and prior affect accounted for different sources of variances in current affect. Also, the relative contribution of prior valence was higher during blocked-valence (beta=.41±.02) compared to mixed-valence condition (st.?=.09±.02). Whereas, relative contributions of normative valence ratings were higher during mixed-valence. Thus, core affect seems to have an increased sensitivity to extrasensory information when pleasantness of sensory input is unpredictable.

POSTER A-38

CHARACTERIZING THE TEMPORAL DYNAMICS OF AFFECTIVE PROCESSES IN BIPOLAR SPECTRUM PSYCHOPATHOLOGY

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Descriptors: bipolar, instability, reactivity

Increasing evidence suggests that clinical and subclinical manifestations of bipolar spectrum psychopathology (BSP) are characterized by affective reactivity and variability independent of mood episodes. However, previous research in this area is limited in that it has not examined affect as a dynamic process. This is problematic because: 1) self-report and lab-based measures of affective processes are poorly correlated with daily life measures, and 2) variability is solely a measure of dispersion, whereas instability measures both variability and temporal dependency. Thus, the present study characterized the affective experiences of BSP using experience sampling methodology focusing on affective reactivity, variability, and instability of negative affect (NA) and positive affect (PA). Undergraduates (n=135) completed the Hypomanic Personality Scale, the Affect Intensity Measure, and surveys assessing affect and experiences 8 times per day for 7 days. When experiencing an event as negative, those high in BSP were more likely to experience NA (gamma=.03, p<.05) and feel that their emotions were out of control (gamma=.05, p<.01). BSP was associated with variability of NA and PA in daily life, especially for those high in BSP and affective intensity (beta=.160, p<.05). BSP was also associated with instability of NA (r=.44, p<.001) and PA (r=.32, p<.001) in daily life. These results provide evidence that individuals experiencing BSP are characterized by reactivity of NA, variability of NA and PA, and instability of NA and PA (high variability with low temporal dependency).

POSTER A-39

AGE-RELATED DIFFERENCES IN REAPPRAISAL SUCCESS

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Descriptors: reappraisal, aging, emotion regulation

Very little is understood about how the execution of emotion regulation changes with age, even though it is likely connected to increases in the experience of positive emotions in later life. We hypothesized that older adults are able to leverage their positivity bias in attention and memory when regulating negative emotion, but may suffer deficits with effectively executing emotion regulation strategies that draw on more effortful cognitive processes implemented in prefrontal regions that decline with age (e.g. reappraisal). To test these predictions, we had 30 younger (n = 30, Mage = 25) and 30 older (n = 30, Mage = 65) adults view negative images while implementing two different types reappraisal strategies: 1) positivizing, or finding positive meaning, and 2) minimizing, or minimizing negative feeling. We found that older adults perform significantly worse than younger adults at both types of reappraisal. However, within the sample of older adults (ages 61-74), age was positively correlated with regulation success under these two reappraisal conditions. These results suggest that, although age-related decline in cognitive processes likely impair regulatory abilities for older adults in general, a secondary process in aging may be helping older adults compensate for these deficits. Taken together, this suggests that the relationship between cognitive processing, positivity biases, and successful regulation behavior in older adults is complex, and may rely on both overlapping and distinct cognitive processes throughout late adulthood.

POSTER A-40

HIGH MEDIA MULTITASKING BEHAVIOUR MITIGATES IN-GROUP BIAS DURING RECOGNITION OF FACIAL EXPRESSIONS OF EMOTION

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Descriptors: emotion recognition, media multitasking, group bias

The simultaneous consumption of two or more media, e.g., listening to music and playing games is termed as Media Multitasking (MMT). The growing evidence of MMT has raised the concern for its effect on emotional wellbeing of an individual. Studies suggest that emotional wellbeing of an individual largely depends on his/her ability to understand the emotions of other individuals. In this regard, one important process is the recognition of facial emotions of other individual. Recently, it is suggested that High Media Multitaskers (HMM) have low facial emotion recognition ability as compared to Low Media Multitaskers (LMM). However, extant literature shows that the accuracy of recognition of facial emotion changes when the perceiver and expresser belong to different groups. Therefore, one can argue that the inaccurate facial emotion recognition among HMM may be the result of 'in-group/out-group' bias. The study address two issues - whether the 'in-group' bias exists in HMM during recognition of facial emotions? Whether the facial emotion recognition ability of HMM differs in different social groups? 120 undergraduate students in India participated in a facial emotion recognition task. Stimuli were taken from Indian (in-group) and Amsterdam (out-group) data set. Results suggest that there is no difference in facial emotion recognition ability of HMM between 'in-group' and 'out-group'. In addition, compared to LMM, HMM display lower emotion recognition ability in both the 'in-group' and 'out-group' images.

POSTER A-41

ATTENTIONAL BIASES FOR NEGATIVE AFFECTIVE STIMULI IN EXTERNALIZING POPULATIONS

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Descriptors: attentional biases, externalizing psychopathology, emotion dysregulation

Research has shown that emotional states can bias attention in perception and information processing. Previous work among individuals with emotion dysregulation, including depression and anxiety, has demonstrated attentional biases for affective faces. Importantly, externalizing (EXT) psychopathology (such as substance use disorders, conduct disorders, and antisociality) is similarly characterized by emotion dysregulation. Building upon this previous work, this study aims to investigate attentional biases for affective faces among individuals with EXT. This study (n=47; 23 females) utilized a dot probe attentional shifting paradigm to investigate attentional biases for affective (fearful, sad, and angry) faces in individuals with EXT. Results indicated evidence for an overall attentional bias for fearful faces. There also was a trend-level effect of group (p = .078) where there was an attentional bias for fearful faces in controls (p=.012) but not individuals with EXT (p = .502). The results suggest that individuals with EXT do not show an attention bias for fearful faces as compared with healthy controls, suggesting deficient fear processing mechanisms among these individuals.

POSTER A-42

FEAR IN THE THEATRE OF THE MIND: THE GENERALIZATION OF FEAR CONDITION BETWEEN VIEWED AND IMAGINED PERCEPTS

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Descriptors: fear, mental imagery, perception

Mental images can provoke intense emotional states (Holmes & Matthews, 2010). We are interested in determining if individuals can acquire fear to imagined percepts and if this fear transfers to viewing percepts. We are also interested in the difference in strength and generalizability of fear conditioning to imagined versus viewed percepts. To address these questions, we used self-report and skin conductance response to determine participants fear. The participants completed two sessions: during the Visual-Acquisition session, they were fear conditioned to viewed stimuli, then imagined the same stimuli. During the Imagined-Acquisition session, they were fear conditioned when imagining, then viewed the stimuli. In a subset of 38 participants, as indicated by self-report, we found fear can be acquired when both viewing (p < 0.001) and imagining (p < 0.001) stimuli. We also found this fear generalizes from viewing to imagining stimuli (p < 0.001) as well as imagining to viewing stimuli (p < 0.001). Further physiological results will be discussed. This shows that fear in the theatre of the mind can produce effects on behavior and physiology, which may be relevant to clinical disorders like anxiety.

POSTER A-43

FROM ANGER TO SYMPATHY: A MODERATED MEDIATION MODEL OF LOCUS OF CONTROL, ANGER, BLAME, AND SYMPATHY IN RESPONSE TO THE KEITH LAMONT SCOTT SHOOTING

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Descriptors: protest, blame, locus of control

The shooting death of Keith Scott by a police officer spurred a series of protests. The shooting and protests gave rise to a range of emotional responses. Following the event, questions arose regarding race and police relations, as well as how emotion was implicated in these events. Following the shooting, (N=1438) students at UNC Charlotte completed a survey assessing locus of control, emotional responses, and protest blame regarding the Keith Scott shooting. A moderated mediation model, controlling for gender, income, political ideology and race, was used to examine the relation between one's belief that they cannot make a difference in terms of race relations (race locus of control (LOC)) and sympathy for protest behavior. Anger at police was the moderator and blame for protest behavior on societal racism/prejudice (blame) was the mediator. Results indicated that blame mediated the relationship between race LOC and sympathy (p<.05), and anger moderated the relationship between race LOC and blame (p<.01). Analyses revealed that as race LOC increased, the indirect effect of blame increased. For those low in race LOC, the indirect effect was not significant, but among those higher, it was, with the effect increasing as race LOC increased. Examination of the interactions revealed that at high levels race LOC, the angrier one was, the stronger the relationship between race LOC and blame. These results suggest that degree of blame dictates the relationship between race LOC and sympathy, and that as anger increases, the effect of blame increases.

POSTER A-44

A UNIQUE CHALLENGE FOR CHINESE CAREGIVERS OF DEMENTIA PATIENTS: HOW THE MOTIVATION TO AVOID LOSING FACE CONTRIBUTES TO CAREGIVER LONELINESS

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Descriptors: loneliness, culture, dementia caregiving

Loneliness is a common experience of caregivers with dementia, and can be an additive stressor to the challenges already inherent in caregiving. Empirical work has rarely examined culture in the context of caregiving and loneliness, making it unclear whether caregivers from different cultures may be more susceptible to loneliness. The present study hypothesized that because Chinese culture highly stigmatizes dementia, Chinese (vs. White) caregivers may be more concerned about "losing face" (i.e., a feeling of shame or embarrassment resulting from the loss of good reputation in the eyes of others) when a family member has dementia. A stronger motivation to avoid losing face may, in turn, promote loneliness in Chinese caregivers, who have withdrawn from social circles to avoid losing face. We tested this hypothesis in a sample of Chinese-American and White caregivers (N=74) of patients with dementia. We found that Chinese caregivers experienced more loneliness than White caregivers (beta=.28, p=.017), and motivation to avoid losing face was associated with more loneliness (beta=.32, p=.006). Both links remained significant when accounting for caregiver age, sex, and hours spent caregiving (ps<.024). An exploratory mediation analysis revealed that motivation to avoid losing face fully mediated the relationship between ethnicity and loneliness. These findings highlight the importance of examining how culture can play a role in dementia caregiver outcomes, and suggest that addressing stigma and loss of face could help reduce loneliness in Chinese caregivers.

POSTER A-45

DIFFERENT CONCERNS, DIFFERENT EMOTIONS? THE ROLE OF CULTURALLY SALIENT CONCERNS IN SHAPING CULTURAL DIFFERENCES IN EMOTION

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Descriptors: culture, values/concerns, autonomy/community

Different cultural contexts are characterized by different patterns of emotional experience; yet, the mechanisms that account for this finding are poorly understood. Here, we propose that systematic cultural variation in emotion may (partially) stem from systematic differences in the situational salience of concerns. To investigate this, we randomly assigned Turkish Belgian biculturals (N = 57) to either a Belgian (i.e. autonomy-promoting) context or a Turkish (i.e. community promoting) context. In each context, biculturals interacted with a confederate who enacted either clear-cut violations of autonomy/community concerns, or situations that were ambiguous in regard to which concern was violated. For each situation, we SPAFF-coded biculturals' emotional expressions in terms of anger and contempt (Gottman et al., 1996). Our results from the clear-cut violations were in line with previous research (Rozin et al., 1999): Across both contexts, autonomy-violations were associated with more anger than contempt (Mdiff = .167, p > .001), whereas community-violations were met with more/equal contempt than anger (Mdiff = -.087, p = .094). In addition, the results of the ambiguous situations supported our theory: Biculturals in the Belgian context experienced more anger than contempt (Mdiff = .267, p > .001), whereas those in the Turkish context experienced equal anger and contempt (Mdiff = .040, p = .310). This suggests biculturals made use of the salient autonomy/community concerns to make sense of these same situations as they occurred in the Belgian/Turkish context, respectively.

POSTER A-47

AN INVESTIGATION INTO WHETHER ETHNICITY IS ASSOCIATED WITH DEPRESSIVE RUMINATION THINKING STYLES

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Descriptors: rumination, ethnicity, culture

Recent studies suggest that, compared to European Americans (EA), depressive rumination (DR) may evoke fewer consequences and may even provide some benefits for Asians. The mechanism(s) responsible for DR ethnic differences is(are) unknown. The current study proposed that DR ethnic differences may be due to EA and Asians having different thinking styles when engaging in DR. Specifically, an "unconstructive" abstract style for EA and a "constructive" concrete style for Asians. EA (n = 37) and Asian Americans (AA; n = 40) depressively ruminated about an unresolved problem that they recalled. Participants then described themselves within the context of their problem eight times. Statements were coded for adjectives (conceptually abstract) and verbs (conceptually concrete). It was predicted that EA would use more adjectives than AA, and AA would use more verbs than EA. No differences were found when all eight statements were analyzed. However, EA primarily used adjectives for the first statement, and tended to use fewer adjectives and more verbs as the number of statements increased in sequence (first 2, first 3, etc.). AA were largely stable and balanced in their lexical choices. For the first statement, AA used significantly more verbs than EA, F(1, 63.27) = 5.60, p = .021, eta squared = .08. This suggests that AA may think more constructively than EA when engaging in DR. If further work supports these conclusions, DR among AA may be cognitively different from EA and points to ethnicity as a potential moderator of whether DR is helpful vs. harmful.

POSTER A-48

LATINO POLITICAL EMOTIONS AND THE TRUMP CAMPAIGN

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Descriptors: latinos, politics, indignation

Emotional reactions to political rhetoric might be particularly prominent among groups that are marginalized, targeted, or perceived as outgroups in America. Trump's use of ethnic and immigration-based messages are likely to have activated emotional reactions among Latinos. We focus on anxiety, anger, disgust and indignation. Disgust plays a role in how people react to perceived group-based threats (Chapman et al. 2009). Indignation emerges as a reaction to a threat to one's public integrity. People who view themselves at the margins of society are more likely to react in an indignant manner to hostile rhetoric aimed at a group of people (Bromell 2013). We propose that in the context of group-based rhetoric, these two emotions might be more reactive as social emotions and better predictors of political effects (Pérez 2015). We designed a survey experiment to test the impact of we test the impact that Trump and his proposals have on Latino emotions and political attitudes. The data for this study comes from two samples of Texas respondents. The first is student survey experiment collected in late 2015 (N=120). The second is a pre-election survey experiment of students at several South Texas institutions (N=500). We use covariance structure analyses to explore the relationships between the four negative emotions in our surveys and their impacts on outcome variables. We find evidence for a two-dimensional alignment of negative political emotions (Marcus, Neuman and Mackuen 2015). While highly reactive to rhetorical threat, indignation and disgust covary on the same factor.

POSTER A-49

PSYCHOLOGICAL OPPORTUNITY COST

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Descriptors: opportunity cost, regret, satisfaction

A fundamental assumption in economics is that opportunity costs are only relevant in the decision-making process. When the decision is taken, however, these opportunity costs are considered as "sunk" and people are assumed to consume the absolute level of utility of the chosen option. In this study, we consider the possibility that the opportunity costs created by the non-chosen alternative may reduce the experienced utility from consumption, even when this alternative is inferior to the chosen one (i.e. without experiencing regret). We denote the extent to which opportunity costs matter for post-choice utility as psychological opportunity costs and hypothesize that they are a direct function of the utility difference between the chosen and the non-chosen alternative. We test this claim in several discrete-choice-experiments with different good categories. We begin by measuring the subjects' preferences between 6 options. One week later, we treat participants with high (low) psychological opportunity costs by providing them the choice between options personally evaluated as their best and 2nd (6th) best option. Subsequently, we measure their satisfaction with the chosen good. Participants in the control group do not have to make any choice and simply receive what they considered as their preferred option. We find that the post-choice satisfaction is indeed significantly reduced with increasing opportunity costs and that treated individuals express lower satisfaction with the chosen alternatives compared to the ones in the control group.

POSTER A-50

DIETARY SELF-CONTROL: AN EXPECTED VALUE MODEL

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Descriptors: decision, value

Unhealthy eating is a leading cause of obesity, diabetes, and cancer. To develop effective interventions to improve eating behavior, researchers need precise models of the psychological mechanisms driving food choice. One promising class of models are value-based models of self-control which propose that choices that require self-control (such as food choice) are determined by the expected subjective value of different choice options. A key variable in this computation is expectations or probability of success which provides a weighting on value. We operationalize expectations of success as composed of both expectations regarding successfully engaging in healthy eating (efficacy expectations; EE) as well as expectations that eating impacts health outcomes (outcome expectations; OE). Using a dietary decision-making task, we show that the healthiness of foods more strongly influences choice among participants (N = 58) who report having high OE, but not EE, regarding healthy eating such that these subjects choose the healthier of two foods 12% (p < 0.001) more often than subjects with low OE. We also show that OE are associated with social class (r = 0.27, p < 0.05).

POSTER A-51

THE SURE THING: THE ROLE OF INTEGRAL AND INCIDENTAL AFFECT IN RISKY CHOICE FRAMING

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Descriptors: framing, risk taking, integral affect

We examined whether unrelated feelings (incidental affect) and feelings toward choice options (integral affect) explain how individuals take risks to avoid sure losses. We utilized a gambling task in which participants were endowed with a sum of money and asked to choose between two options: A sure option, or a gamble option that could result in keeping or losing the full endowment. The sure option was framed differently across within-participant conditions as either a gain (keep $20 from $25) or a loss (lose $5 from $25). Participants reported their positive and negative incidental affect before the task. Integral affect was measured by asking participants to rate how they felt about the sure and gamble options on a scale of -3 (very negative) to +3 (very positive). Participants were more risk-seeking when the sure option was framed as a loss compared to a gain. Also, they reported more positive integral affect toward the sure option in the gain frame (Mean=3.94) than in the loss frame (Mean=2.92), t(31)=6.68, p<.001. A moderated mediation indicated that integral feelings towards the sure option partially explained the effect of frame on risk taking when incidental positive affect was high (Beta=-.096, Confidence Interval=-.119, -.076) and fully mediated the effect of frame on risk taking when incidental positive affect was low (Beta=-.068, Confidence Interval=-.088, -.050). Findings suggest that individuals take more risks when faced with sure losses versus sure gains, due to less positive integral affect toward sure losses as a function of positive incidental affect.

POSTER A-52

A QUANTITATIVE TEST OF THE "POLITICS OF RESENTMENT" IN THE 2016 UNITED STATES GENERAL ELECTION

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Descriptors: political choice, intergroup emotions

Recent qualitative research on the "Politics of Resentment" suggests that less educated Americans and those from rural areas of the United States are encouraged by right-leaning politicians to view state employees as representatives of "big government" who enjoy unfair, economic advantages. These perceptions are held to foster resentment toward such groups and to increase support for conservative policies (cf. Cramer, 2016). We conducted a nationally representative online "United States Feelings Survey" (N = 3,820) through the University of Southern California Center for Economic and Social Research to assess Americans' admiration-related (e.g., pride, gratitude) and resentment-related (e.g., anger, disgust) feelings toward public school teachers, natural resource workers, and university professors. Collapsing across categories of state workers, we found that Americans reported more admiration-related than resentment-related feelings toward state employees overall (p < .001). Further, mediation models indicated that lower levels of education (p < .001), a republican political affiliation (p < .001), and rural residence (p < .02) predicted voting for the conservative candidate in the 2016 US presidential election (Donald Trump); admiration-related and resentment-related feelings partially mediated the effects (p < .01, all tests). Our work provides the first quantitative test of the "Politics of Resentment" hypothesis, and reports findings that are both consistent and inconsistent with prior conclusions, thus advancing accounts of intergroup emotions in voting behavior.

POSTER A-54

MOTIVATED TO CONFRONT: EXPERIENCING ANGER MITIGATES ANCHORING BIAS

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Descriptors: anger, anchoring bias

The current research investigates the effect of anger and disgust on anchoring bias. Because anger and disgust are similar in certainty appraisal but bdiffer in action tendencies, the studies control for one pathway through which emotions affect anchoring--the emotion's associated certainty appraisal (Inbar & Gilovich, 2011)—and provide additional evidence for the experiential pathway (Lerner, 2015): the emotion's action tendencies (Jung & Young, 2011). We propose that anger leads to less anchoring bias because decision makers experiencing anger want to attack ("move against", Frijda et al., 1989) the anchor more than disgusted decision makers do. In Study 1 (N=164), participants induced to feel angry deviated more from an anchor than participants induced to feel disgust (t(156) = 2.33, p<.05). In support of the mechanism to confront others but not oneself, participants in Study 2 were induced to feel angry or disgusted and then completed a general knowledge test. Angry participants exhibited less anchoring bias than those induced to feel disgust but only when the anchors were externally-provided, not when the anchors are self-generated (F(2, 82) = 6.81, p < .01, partial eta = .14). In Study 3, 149 participants completed the emotion-induction task and general knowledge task in which an anchor was provided by an ingroup or outgroup member. Anger led to less anchoring only when the anchor was provided by an out-group member not when given by an in-group member (F(2, 126) = 3.88, p < .05, partial eta = .06).

POSTER A-55

IMPAIRED THREAT DETECTION AND PHYSIOLOGICAL REACTIVITY IN WOMEN WHO HAVE EXPERIENCED MULTIPLE TRAUMAS

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Descriptors: PTSD, threat detection, psychophysiology

Research demonstrates that sexually revictimized women may have alterations in threat detection or responsivity, yet little is known about the internal, self-regulatory physiological experience that accompanies threat-related decisions. The current study measured physiology concurrently with a threat detection task, wherein participants indicated at what point in an increasingly risky situation they would feel uncomfortable, or leave. In our sample (N=67), curve estimation demonstrated a quadratic relationship for CSA and threat detection such that those with moderate SA were most cautious, while those with both none and extreme SA less so, (R2 = 0.16, p = .0005). Additionally, individuals sexually revictimized as adults had longer latencies to leave than those with CSA alone. Longer latencies to leave and reported discomfort were associated with peak heart rates occurring much earlier in the task, r(65) = .623 p < .001, suggesting a possible "shut down" response to dysregulated physiological threat cues that might alter responsiveness to external threat cues. Results suggest that an increased sensitivity to threat may paradoxically result in impaired mobilization of responses. Clinical implications suggest that prevention of revictimization might include interventions aimed at enhancing tolerance and awareness of internal threat cues.

POSTER A-56

A NOVEL PROCEDURE TO STUDY THE EFFECTS OF INTEGRAL EMOTION ON MEMORY

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Descriptors: integral emotions, emotion induction, memory

Positive and negative affect (PA and NA) influence memory differently. Most research exploring the effects of valence on memory relies on observations of incidental effects, rather than integral effects, of emotion. Incidental effects, where the focus is on how the induced emotion influences memory for an unrelated stimulus, are easier to control experimentally than integral effects, where the focus is on how the emotions experienced in a situation influence memory for that same situation. The difficulty of implementing studies of integral emotion and memory lies in standardizing a situation across positive and negative conditions while still inducing the intended emotion. The present study was designed to validate a novel procedure to be used in future research on the effects of integral emotion on memory using variations of the Trier Social Stressor Task. Participants (N=105) gave an impromptu speech in one of 3 conditions: negative, neutral, and positive. The only variation between conditions was the topic of the speech and the demeanor of the speech evaluators. Reports of PA and NA did not vary at baseline between conditions (F's<.50, p's>.61). The manipulation successfully increased PA, t(34)=-4.53, p<.001, and decreased NA, t(34)=2.30, p=.028, in the positive condition; and also decreased PA, t(34)=6.52, p<.001, and increased NA , t(34)=-5.66, p<.001, in the negative condition. Groups differed significantly in PA, F(2, 102)=17.67, p<.001, and NA, F(2, 102)=20.49, p<.001, after the manipulation in the expected directions, demonstrating the efficacy of this procedure.

POSTER A-57

QUANTIFYING THE SUBJECTIVE COST OF SELF-CONTROL UNDER STRESS

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Descriptors: self-control, stress, decision-making

Emerging decision-making research suggests that rather than a 'failure' of self-control or an irrational decision, deviations from goal-directed behavior may arise from a rational decision-making process that weighs the costs and benefits of exerting control. These intrinsic 'control costs' are thought to stem from the limited cognitive resources available to support the demands of exercising control. Given these costs, an important strategy to promote optimal decision-making is to prospectively eliminate temptation from one's environment—known in behavioral economics as 'pre-commitment'. Here, we employed a novel economic decision-making task to quantify self-control costs in healthy dieters and further tested how these costs change after exposure to stress. Participants continuously reported how much they were willing-to-pay to adopt pre-commitment strategies to avoid temptation, allowing us to (1) directly measure their subjective cost of exercising self-control and (2) track the temporal dynamics of these costs. Across two studies, we found novel evidence that individuals were willing to pay to restrict exposure to temptation. Further, we found that stressed participants paid significantly more to avoid temptation, suggesting that one way stress disrupts self-control is by increasing the perceived cost of control. Consistent with an emerging value-based framework viewing self-control as a cost-benefit decision, these data suggests that the subjective cost of self-control can be quantified in humans and that these costs are strongly modulated by stress exposure.

POSTER A-58

EARLY INFANT NEURAL CIRCUITRY PREDICTS 6-MONTH AFFECTIVE BEHAVIOR

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Descriptors: infancy, neuroimaging, emotion

From birth to two years old, the brain undergoes major changes in neural migration, synaptogenesis and myelination. Concurrently, infants learn to express their needs using motor and affective behaviors such as heightened activity level, anger, and fear. Anger and fear are normative responses in many contexts, but extreme cases can predict later child behavior problems. In a sample of 149 infants, we identify the neuroaffective circuitry underlying anger and fear expression. At 1-month of age, infants underwent MRI with multi-shell DTI. Using a NODDI model, we calculated the intra-cellular volume fraction (vIC), a quantitative measure of neurite density (ND; the proportion of axons and dendrites present in any specific voxel). At 6-months, infants' activity level, anger, and fear responses were scored using episodes from the Laboratory Temperament Assessment Battery. Voxel-wise analyses controlling for sex and age compared 1-month ND and 6-month behavior using permutation testing and threshold-free cluster enhancement. Higher activity level was associated with higher ND in the left superior coronal radiata and superior fronto-occipital fasciculus (t(94) > 2.6 in each voxel, p<.01). Higher anger was associated with higher ND in the right corticospinal tract and hypothalamus (t(94) > 2.8 in each voxel, p<.01). Finally, higher fear was associated with higher ND in the body of corpus callosum and cingulum (t(78) > 2.3 in each voxel, p<.01). In sum, early emerging infant neural microstructure differentially relates to later infant affective response.

POSTER A-59

WHAT'S ON DISPLAY IN SOCIAL DISPLAY RULES: CHILDREN'S ABILITY TO USE ONE PERSON'S EMOTIONAL EXPRESSIONS TO INFER THE DESIRES OF ANOTHER

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Descriptors: social display rules, emotional expression, theory of mind

We investigate children's ability to use social display rules to infer agents' otherwise under-determined desires. Across four experiments (N = 194), seven- to ten-year-olds saw a protagonist express one emotional reaction to an event in front of her social partner (the Social Context), and a different expression behind her social partner's back (the Nonsocial Context). Although the protagonist expressed two contradictory emotions (and the social partner expressed no emotions at all), children were able to use the protagonist's expression in the Nonsocial Context to infer her desire and her expression in the Social Context to infer her social partner's desire. Children's performance improved between ages seven and ten (Experiment 1; n = 92; protagonist's desire: beta = .38, SE = .17, z = 2.25, p = 0.024; social partner's desire: beta = .35, SE = .17, z = 2.08, p = 0.038; Ordinal Logistic Regression). Only ten-year-olds successfully inferred both desires (both zs > 3.30, both ps < .001; Exact Wilcoxon-Pratt Signed-Rank Test). When task demands were reduced, even seven- and eight-year-olds succeeded (Experiment 2; n = 34; all zs > 2.67, all ps < .013). Experiments 3 and 4 replicated Experiment 2 (n = 34 per experiment; all zs > 2.53, all ps < .021) and ruled out alternative explanations of our data. These results suggest that children can use changing emotional expressions between social and non-social contexts to recover not only the desire of the person displaying the emotions but also that of her intended audience.

POSTER A-60

GETTING TO THE HEART OF THE MATTER IN LATER LIFE: THE CENTRAL ROLE OF AFFECT IN HEALTH MESSAGE FRAMING FOR OLDER INDIVIDUALS

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Descriptors: aging, health, message framing

Adopting healthy behaviors is often influenced by the way information is framed. In particular, gain-framed (GF) messages emphasize the benefits of engaging in a specific behavior (e.g., "exercising improves heart health"), whereas loss-framed (LF) messages highlight the consequences of not engaging in a particular behavior (e.g., "not exercising reduces heart health"). GF messages are particularly impactful for older adults, especially in the health domain of physical exercise (Mikels et al., 2016). In the current study, we examined the relative effectiveness of GF and LF messages in recruiting older individuals to enroll in an exercise program. We mailed flyers to 126 volunteers (mean age=71.75) randomly assigned to a GF or LF condition. Upon receiving the flyer, we called each participant and asked them to rate their affective reactions to the flyer and enrollment interest. After the call, participants had the opportunity to contact us to enroll. Gain- versus loss-framing led to more positive affect toward the flyer (t(124)=4.05, p<.001), which in turn predicted interest (beta=.49, p<.0001) and enrollment (beta=.12, p<.02). In a mediation model, frame indirectly influenced interest and enrollment via positive affect toward the flyer (beta=.22, p<.0001, CI: .11-.37 & beta=.06, p<.05, CI: .01-.11, respectively). In sum, message framing, albeit indirect, plays a role in influencing the health behavior of older individuals. Affect, however, plays a central role in mediating this relationship.

POSTER A-61

A CONSTRUCT META-ANALYTIC AND NETWORK THEORETIC APPROACH TO EMOTIONAL GRANULARITY

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Descriptors: emotional granularity, network analysis, meta-analysis

Emotional granularity describes the ability to experience emotion with precision and detail, and has been linked to mental and physical health. But granularity is not the only construct used to describe quality of emotional life. Constructs such as awareness and range have also been associated with well-being. Yet the relationship between constructs is unclear, hindering the ability to compare and apply findings. Further, measures are often global retrospective reports that provide static summaries. Granularity is an exception in that it examines patterns of emotion co-endorsement in experience sampling data, but it still fails to capture individual variation over time. We address these problems with a twofold approach. First, we use construct meta-analysis to assess competing measures of quality of emotional life, and propose an integrative theoretical framework. Second, we use network theory as an analytic framework for emotional granularity. Using an archival dataset (N = 72), we explore how the semantic space for emotion can be modeled by graphing terms according to patterns in co-endorsement over time. The clustering coefficient metric, which represents how tightly terms are inter-connected, is significantly negatively correlated with both negative ($r = -.435$, $p < .001$) and positive ($r = -.248$, $p = .036$) granularity. Tests of concurrent and predictive validity for this metric are forthcoming. We discuss how network metrics may also be used to operationalize other aspects of emotional experience, such as stability versus variation in patterns of experience over time.

POSTER A-62

TIMING OF POSITIVE EMOTION INTERVENTION EFFECTS IN PEOPLE WITH ELEVATED DEPRESSIVE SYMPTOMS DIFFERS FOR MEANING AND LIFE SATISFACTION OUTCOMES

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Descriptors: depression, positive emotion, intervention

Online interventions to increase positive emotion (PE) may be helpful to people living with depression. We tested a self-guided, 5-week online PE skills intervention for people with elevated depressive symptoms (PHQ range=5-24, M=13.5, SD=5.73), randomized into 3 enhancements: online discussion board (N=26), gamification (N=26), and facilitator contact groups (N=26). Participants completed follow-up questionnaires immediately post, 1 month post (FU1), and 3 months post-intervention (FU2). We examined differences over time and by enhancement in both meaning and purpose (MP) and satisfaction with life (SWL) via the NeuroQOL Positive Affect and Wellbeing Scale using multilevel modeling. As enhancement groups did not differ in change over time, they were combined for subsequent analyses.

Results indicated that SWL increased significantly from baseline to post (mean difference=0.43, p<0.001, 95CI=0.17, 0.69). An increase in MP did not reach significance until FU1 (mean difference=0.39, p=0.01, 95CI = 0.06, 0.72). Both increases were sustained through FU2.

While these results should be replicated in a larger study with clinically depressed participants, they suggest that changes to SWL are more immediate, while changes in MP are slower to come about in participants with elevated depressive scores engaging in an online PE intervention. More broadly, this study demonstrates that online PE interventions for depression may impact SWL as well as MP, and that longer term measurement post-intervention may be necessary to capture important emotion effects in online PE interventions.

POSTER A-63

SCHIZOTYPY AND STATE AFFECT INTERACT TO PREDICT RISK TO SELF AND OTHERS: PRELIMINARY DATA FROM AN AMBULATORY STUDY

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Descriptors: risk state, state affect, ambulatory assessment

Risk states for self-inflicted harm (e.g., suicidality, NSSI) and harm toward others (e.g., homicidality, aggressive behavior) have long been associated with schizophrenia. To date, there is mixed evidence linking risk states to schizotypy, defined as personality traits reflecting an underlying vulnerability for schizophrenia-spectrum disorders, and most prior studies have not considered potential moderators. Abnormalities in state affectivity (e.g., low positive, high negative) are associated with risk in the general population and are a hallmark feature of schizotypy. Data was collected using trait measures of schizotypy combined with prospective ambulatory data collection of subjective self and others-harm and state affectivity over three days in 62 young adults. Multilevel modeling revealed significant main effects for schizotypy (LLR = 9.78, p < .05) and state affect (LLR = 19.03, p < .05). A significant interaction (i.e., schizotypy x state affect) was also found such that aberrant state affectivity was related to increased risk states, but only in individuals with elevated schizotypal traits (LLR = 25.42, p < .05). Aberrant state affectivity is a salient feature in schizotypy that appears to confer risk of harm to self and others in daily life. Ambulatory assessments are a potentially sensitive method of understanding, and reducing, harm to self and others in individuals with schizotypy.

POSTER A-64

SHAME, ON ME. DIFFERENTIATING THE PHYSIOLOGY OF SHAME AND FEAR IN TRAUMA-EXPOSED WOMEN

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Descriptors: shame, PTSD, psychophysiology

Biological explanations of posttraumatic stress disorder (PTSD) have traditionally focused on pathological fear conditioning (Debiex, Bush & LeDoux, 2011) and the psychophysiology during trauma reliving paradigms is consistent with a fear response (Pole, 2007). Although fear may play a central role in traumatic stress, the social emotions of shame and guilt may be particularly relevant to examining how interpersonal violence (IPV) impacts the self (Street & Arias, 2001). An understanding of the psychophysiology of shame, guilt, and fear in survivors of IPV is necessary to justify the expansion of the fear-based biological model of PTSD. A community sample of 64 female survivors of IPV described an incident where they felt very ashamed as concordant electrocardiogram, impedance cardiography (N=40), and self- and observer-reported emotions were gathered. Results indicated that neither fear nor guilt predicted physiological changes, however self-report and observer-coded shame were associated with an increased parasympathetic, (RSA: r(63) = .28, 95% CI [.04, .50]) nervous system and a decreased sympathetic nervous system (PEP: r(38) = .37, 95% CI [.10, .56]) response respectively. PTSD symptoms and shame were associated with reduced cardiac output during the task (CO: r(38) = .48, 95% CI [-.68, -.16]). This psychophysiological profile inconsistent with a typical fear response. Discussion will focus on the study's implications for broadening fear-based conceptualizations of PTSD by including social emotional affect, such as shame.

POSTER A-65

A META-ANALYSIS OF INTERPRETATION BIASES IN DEPRESSION: A GLASS HALF-FULL OR HALF-EMPTY?

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Descriptors: interpretation bias, depression, meta-analysis

Interpretation biases have long been theorized to play a central role in depression. Yet, the strength of the empirical evidence for this bias remains a topic of debate. This meta-analysis aimed to estimate the overall effect size and to identify moderators relevant to theory and methodology. PsycINFO, Embase, Web of Science, Scopus, PubMed, and dissertation databases were searched. A random-effects meta-analysis was performed on 87 studies (N=9,443). Results revealed a medium overall effect size (g=0.72, 95%-CI:[0.62;0.82]). Equivalent effect sizes were observed for patients diagnosed with clinical depression (g=0.60, 95%-CI:[0.37;0.75]), patients remitted from depression (g=0.59, 95%-CI:[0.33;0.86]), and undiagnosed individuals reporting elevated depressive symptoms (g=0.66, 95%-CI:[0.47;0.84]). The effect size was larger for self-referential stimuli (g=0.90, 95%-CI[0.78;1.01]), but was not modified by the presence (g=0.74, 95%-CI[0.59;0.90]) or absence (g=0.72, 95%-CI[0.58;0.85]) of mental imagery instructions. Similar effect sizes were observed for a negative interpretation bias (g=0.58, 95%-CI:[0.40;0.75]) and lack of a positive interpretation bias (g=0.60, 95%-CI:[0.36;0.85]). The effect size was only significant when interpretation bias was measured directly (g=0.88, 95%-CI[0.77;0.99]), but not when measured indirectly (g=0.04, 95%-CI[-0.14;0.22]). It is concluded that depression is associated with interpretation biases, but caution is necessary because methodological factors shape conclusions. Implications and recommendations for future research will be discussed.

POSTER A-66

WHEN WORRY TURNS TO WEIGHT: GENDER DIFFERENCES IN THE ASSOCIATION BETWEEN GAD AND FEAR OF FAT

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Descriptors: GAD, fear of fat, BMI

Research has shown that females tend to experience societal pressures to be thin and are inclined to be fearful of weight gain, whereas men are assumed to be less affected by these societal pressures. This has led to a dearth of research investigating the factors that may contribute to fear of fat in men. The current study examined subclinical generalized anxiety symptomatology (i.e. GAD-7) as a predictor of gender differences in the association of fear of fat and BMI. As part of a larger online study of emotional experiences, 126 undergraduate students (Mean age=20.44, SD=4.31) completed a set of psychological questionnaires. BMI in this sample ranged from 16 to 38 (M=24.02, SD=4.63). Regression analyses revealed that GAD and fear of fat were significantly related in males, beta=.469, p=.000, but not in females, as they experienced fear of fat independent of general anxiety symptoms. Higher fear of fat, however, predicted greater BMI in females, but not in males. This pattern of findings suggests that fear of fat might be more reactive (i.e. affecting BMI) for females than for males. The finding that fear of fat is higher in women than men aligns with previous research. The present study adds to this literature by demonstrating that males' fear of fat is largely dependent upon GAD symptomatology, while females' fear of fat is not. As male body image-related concerns are on the rise (though still less represented), our findings may have clinical implications regarding the association between GAD and fear of fat body image-related concerns in males.

POSTER A-67

SALIENCE NETWORK ABERRATIONS UNDERLYING INTERNALIZING PSYCHOPATHOLOGY IN AUTISM SPECTRUM DISORDER

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Descriptors: autism spectrum disorder, internalizing psychopathology, fMRI

Internalizing psychopathologies–namely: anxiety, depression, withdrawal, and somatization–are highly prevalent in autism spectrum disorder (ASD). Yet, the neural circuits underlying internalizing in ASD are underspecified. Based on a recent model of internalizing in ASD, the current study tested the hypothesis that aberrant functional connectivity of the salience network (SN; anterior insula and anterior cingulate cortex) plays a role in the etiology of internalizing in ASD. Specifically, SN aberrations and internalizing were measured using resting-state fMRI and gold-standard assessments in a sample of adolescents and young adults with ASD (N=49) or typical development (TYP; N=53). Using a leading-edge parcellation of the human cortex, we found two specific SN circuits that were overconnected in ASD relative to TYP: anterior insula (aINS) to retrosplenial cortex (RSP), and aINS to frontal pole (FP). In line with our hypotheses, aINS-RSP connectivity was associated with increased internalizing psychopathologies in ASD. Interestingly, aINS-RSP connectivity was negatively associated with the difference between self- and parent-reported internalizing, suggesting this aberration disrupts insight into one's own internalizing. In control analyses, aINS-FP connectivity was not associated with internalizing, and aINS-RSP connectivity was not associated with a closely matched control measure (externalizing). The current findings provide novel evidence for a specific link between aberrant SN connectivity, diminished insight, and increased internalizing psychopathologies in ASD.

POSTER A-68

GAINING CONTROL OVER EATING? A STUDY ON THE MECHANISMS UNDERLYING FOOD INHIBITION TRAINING

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Descriptors: overeating, inhibitory control, food cue sensitivity

In today's food-rich environment, overeating is an important contributor to rising obesity levels and a core symptom of binge eating disorder. Previous studies show that a food-specific go/nogo inhibition training can reduce food intake. Although these studies are promising, the mechanisms underlying this training induced effect on eating remain unclear. Training is proposed to strengthen inhibitory control over food-related responses, but this has not been directly tested. In the present study we randomly assigned individuals scoring high on uncontrolled eating to receive six sessions of a food-specific inhibition training (n = 21) or a control non-food inhibition training (n = 20). We measured snack consumption in a bogus taste test after training, as well as training induced changes in inhibitory control for food and cue induced craving. Results show that food-specific inhibition training, as compared to control training, decreased snack consumption in the bogus taste test, F(1, 37) = 4.58, probability < .05. However, training did not improve inhibitory control towards food, nor did it reduce cue induced craving. Based on these findings it thus seems unlikely that increased inhibitory control for food explains the effects on food intake. An alternative explanation is that approach behaviour to food is detached from the food cue. That is, during training participants are repeatedly exposed to food items to which they have to withhold their response, so food cues that maybe once were associated with subsequent food intake are repeatedly unreinforced during the training.

POSTER A-69

SOCIAL MOTIVATION NARRATIVES AND ANTICIPATORY PLEASURE IN SCHIZOPHRENIA

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University of California, Berkeley

Descriptors: schizophrenia, narrative analysis, anticipatory pleasure

Deficits in anticipatory pleasure have been linked to worse social functioning in schizophrenia. Our understanding of the social implications of living with the illness may be enriched by exploring the connection between emotional experiences and motivation systems. Utilizing quantitative narrative analysis offers a unique platform to compare how people with and without schizophrenia articulate the factors that encourage social interaction. We analyzed responses from 16 people with and 16 people without schizophrenia obtained from the narrative, semi-structured Clinical Assessment Interview for Negative Symptoms (CAINS) along with scores on the Temporal Experience of Pleasure Scale (TEPS). Though the groups did not differ in the number of motivations they were able to self-generate, for people with schizophrenia only, the more reasons identified for why relationships were valued, the more they reported experiencing anticipatory pleasure (beta = -.084, t(27) = -2.58, p < .03, CI [-.15, -.02]). The model including participant group, number of motivations, and their interaction explained 44.32% of the variance in anticipatory pleasure, and the interaction remained significant even after controlling for negative symptoms, word count, and number of probes. It is possible that having motives accessible in conscious awareness may offset emotional deficits, which would not be as pertinent to those without the illness.

POSTER A-70

THE COGBIAS LONGITUDINAL STUDY: INVESTIGATING THE IMPACT OF GENES AND COGNITIVE BIASES ON PSYCHOLOGICAL WELLBEING

Elaine Fox[1], Charlotte Booth[1], Annabel Songco[1], Sam Parsons[1], Lauren Heathcote[2], Robert Keers[3], John Vincent[3]
[1]University of Oxford, [2]Stanford University, [3]Queen Mary University

Descriptors: cognitive bias, psychopathology, resilience

In largely independent lines of research, negative cognitive biases (attention, interpretation of ambiguity, and memory) as well as genetic variants (e.g., serotonin transporter short and long alleles) have been associated with both risk and protection to psychopathology. In the CogBIAS Longitudinal study, we are following a normative sample of 500 young people (average age = 12.9 in Wave 1) over a 5-year period with three different waves of assessment (at age 12/13; 14/15; and 16/17 years). At each assessment period we obtain extensive subjective as well as behavioural (cognitive) assessments relating to anxiety and worry, depression, impulsivity toward high calorie food, pain catastrophization and resilience to these outcomes. Data collection for Waves 1 and 2 have been completed and Wave 3 will be completed by July 2018. Preliminary results from Wave 1 indicate that combinations of cognitive biases (what we might call poly-bias sensitivity scores) are associated with various outcomes related to psychological wellbeing. We have conducted preliminary analysis of a polygenetic sensitivity score (PSS) derived from a recent GWAS of depression risk and found that there are clear associations with some of our negative bias measures. We outline a new methodological framework that encapsulates cognitive and genetic factors in the development of psychological wellbeing and discuss the potential implications for the development of new personalized therapies.

POSTER A-72

STATIC AND DYNAMIC PREDICTORS OF HOSTILE RISK STATES IN SERIOUS MENTAL ILLNESS

Tovah Cowan[1], Thanh Le[1], Raymond Tucker[1], Brita Elvevåg[2,3], Terje Holmlund[2,3], Alex Cohen[1]
[1]Louisiana State University, [2]Department of Clinical Medicine, University of Tromsø – the Arctic University of Norway, [3]The Norwegian Centre for eHealth Research, University Hospital of North Norway

Descriptors: negative affect, serious mental illness, hostility

Individuals with serious mental illness are at higher risk to engage in hostile behaviors towards both self and others than the general population. Predictors of hostility have historically focused on static variables (e.g. gender, diagnosis), neglecting individual differences and dynamic variation. Static predictors are useful for long temporal epochs (e.g., years), but are not very helpful for predicting short-term risk. Dynamic predictors of hostility could be subjective, such as self-reported state affect, or objective, such as vocal variability. Vocal variability is a computationally based measure of modulation of pitch and volume. This study employed ambulatory assessments to explore predictors of state self-reported hostility in participants with serious mental illness (N = 25, total observations = 49), using multilevel linear modeling. There was a significant main effect for state negative affect (L ratio = 9.33, p = .002), but not for the static factors explored (demographic and clinical variables). A significant interaction was observed between state negative affect and vocal variability (L ratio = 13.40, p = .001). High negative affect and low vocal variability predicted high hostility. People with greater vocal variability did not report different levels of hostility according to their level of negative affect, but those with less variability did. These results highlight the importance of dynamic predictors of hostile risk states, suggesting new targets for assessment and intervention to decrease hostility in a serious mental illness population.

POSTER A-73

CHOSEN SOLITUDE OFFSETS THE NEGATIVE EMOTIONAL IMPACT OF ALONENESS: IMPLICATIONS FROM TWO EXPERIENCE SAMPLING STUDIES

Dwight Tse
Claremont Graduate University

Descriptors: solitude, absence of interaction, experience sampling

Although past studies have established that people experience more loneliness and less positive mood in solitude than in social interaction, some literature depicts solitude as a positive experience as it frees people from social obligations. These contradicting views suggest a potential moderator that influences the emotional experience in solitude. Specifically, voluntariness of a solitary activity—whether people "want to" (chosen solitude) or "have to" (unchosen solitude) do the activity—may yield different emotional outcomes in solitude. Two independent week-long experience sampling studies were conducted to understand the emotional profiles of chosen and unchosen solitude. In Study 1 (N = 73, k = 2405), multilevel modeling results reveal that participants reported more positive general mood in chosen than unchosen solitude, b = .52, p < .001. Results from Study 2 (N = 43, k = 1350) on four distinctive emotions (excited, calm, anxious, and frustrated) suggest a better emotional profile in chosen than unchosen solitude, b(excited) = .67, b(calm) = .34, b(anxious) = -.33, b(frustrated) = -.56, all ps < .001. Interestingly, whereas people in unchosen solitude reported higher levels of negative and lower levels of positive emotions than their within-person weekly averages, the emotional levels in chosen solitude showed no significant difference from the personal weekly averages. The findings provide initial support that chosen solitude helps offset the negative impact of aloneness on emotions and restore affective homeostasis.

POSTER A-74

DIFFERENCES IN MEMORY FOR SOCIAL FEEDBACK: EXAMINING THE ROLE OF PRIOR EXPECTATIONS

Jessica L. Jones, Ozlem Ayduk
University of California, Berkeley

Descriptors: belonging, rejection, personality

Attitudes towards the self hold strong implications for expectations that are formed regarding social feedback. However, we may process feedback that is in or out of line with trait- or momentary-level expectations differently. We examined if participants' momentary expectations of social feedback affected subsequent memory of this feedback, and how trait-level expectations moderated this relationship. Participants (N=76) completed the Rejection Sensitivity Questionnaire then interacted with 80 computerized confederates, making expectations for accepting or rejecting social feedback, and then receiving expected (congruent) or unexpected (incongruent) feedback. Then they completed a memory task, identifying those who had rejected or accepted them, or who they had not seen before. Participants recalled those who provided expected feedback more accurately (F(1,66)=48.87, p<0.0001), and memory for expected feedback did not differ by valence (t(198)=-0.43, p=0.67). However, those high in rejection sensitivity (RS) remembered rejecting feedback more accurately than accepting (expected: t(192)=-2.33, p=0.095, unexpected: t(192)=4.93, p<0.0001) and recalled expected and unexpected rejection equally well (t(192)=0.21, p=0.997). Our results support that those high in RS prioritize rejection relative to acceptance feedback, especially when positive feedback is unexpected. This suggests that high RS individuals may distort positive interactions in memory and recall them inaccurately, which could hold significance for RS interventions that focus on increased attention to positive cues.

POSTER A-75

DISCOVERING SOCIAL GROUPS VIA LATENT STRUCTURE LEARNING

Tatiana Lau, Thomas Pouncy, Samuel J. Gershman, Mina Cikara
Harvard University

Descriptors: social representations, intergroup relations, computational

Humans form social coalitions in every society, yet little is known about how we learn and represent social group boundaries. Here, we use a novel approach through a domain-general, computational model of latent structure learning. We find that it predicts social preferences better than the typical inputs of explicit category labels and similarity. Four experiments examine (1) how evidence for group boundaries drives one's own choices and attributions about other agents; and (2) whether these latent groups affect choice in the presence of group labels contradicting the latent group structure. Subjects state their own stances on 8 political issues and learn the stances of 3 agents (A, B, and C). A and B each agree with the subject 50% of the time; we manipulate the agreement level of C to either cause or not cause the subject to form a latent group consisting of themselves, B, and C. When asked whose political stance (A's or B's) they would adopt, subjects are more likely to choose B only when a latent group is formed. This contradicts traditional models, which predict equal rates of choosing A and B and that C's presence should not matter. We find the predicted latent structure effect using political values (Study 1); that it persists even when B's preferences exhibit low coherence (Study 2); that it leads subjects to rate B as more likeable, competent, and moral (Study 3); and persists despite explicit, countervailing labels of team memberships. Even when B is labeled as an out-group member and A is labeled as an in-group member, participants side with B (Study 4).

POSTER A-76

WITHIN-PERSON RELATIONSHIPS BETWEEN PRAYER, DAILY STRESS, AND SOCIAL EVENTS

David B. Newman[1], John B. Nezlek[2,3], Todd M. Thrash[2]
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Descriptors: prayer, daily diary, daily social events

According to the Pew Research Center, 58% of Americans pray on a daily basis, yet very little is known about how daily prayers relate to social life and daily states of stress. To address this shortcoming, we conducted two daily diary studies in which 254 participants completed 3,288 daily reports of their social interactions, stress, and their prayers over the course of two weeks. Relying on a common religious taxonomy, we measured four prayer categories: supplication, thanksgiving, confession, and adoration. Using multilevel modeling, we found that people expressed more prayers of thanksgiving (b = .08, t = 2.89, p = .004) and adoration (b = .08, t = 3.17, p = .002) and less prayers of supplication (b = -.05, t = 1.72, p = .09) when they engaged in positive social events and interactions. People also expressed more prayers of confession (b = .08, t = 2.58, p = .011) and less prayers of adoration (b = -.08, t = 2.00, p = .045) when negative social events occurred. Daily states of negative activated affect (e.g., stress, anxiety) were positively related to prayers of supplication (b = .26, t = 9.99, p < .001) and negatively related to prayers of thanksgiving (b = -.16, t = 5.40, p < .001), relationships that remained significant after adjusting for daily events. These within-person results suggest that prayers may be related to daily stress above and beyond the effects of daily events. By moving beyond between-person analyses, we have shown that daily stress can be influenced by prayer, a common daily experience that has been largely unexamined by emotion research.

POSTER A-77

INTERPERSONAL SYNCHRONY PREDICTS THE IMMEDIATE AND LASTING IMPACT OF ONLINE PEER-TO-PEER EMOTIONAL SUPPORT

Bruce P. Dore[1], Robert R. Morris[2]
[1]University of Pennsylvania, [2]Koko

Descriptors: social regulation of emotion, emotional support, interpersonal synchrony

Emotional support is critical to well-being, but the factors that determine whether support attempts succeed or fail are incompletely understood. Using data from more than one million support interactions enacted within an online environment, we show that emotional support attempts are more effective when there is synchrony in the behavior of support providers and recipients reflective of shared psychological understanding. Benefits of surface-level synchrony in language used and deeper-level synchrony in meaning conveyed were apparent in immediate measures of support impact (recipient ratings of support effectiveness and expressions of gratitude), as well as delayed measures of lasting change in the emotional impact of stressful life situations (recipient ratings of emotional recovery made at a one-hour delay). These findings identify interpersonal synchrony as a process underlying successful emotional support and provide direction for future work investigating support processes enacted via linguistic behaviors.

POSTER A-78

DOWN-REGULATION OF LOVE FEELINGS AFTER A ROMANTIC BREAK-UP: SELF-REPORT AND ELECTROPHYSIOLOGICAL DATA

Sandra J.E. Langeslag, Michelle E. Sanchez
University of Missouri-St. Louis

Descriptors: love regulation, heartbreak, emotion regulation

Because remaining love feelings for an ex-partner are negatively associated with recovery from a romantic break-up, it may be helpful to decrease those love feelings. Love regulation is the use of behavioral or cognitive strategies to change the intensity of current feelings of romantic love. This study tested how three regulation strategies (i.e., negative reappraisal of the ex-partner, reappraisal of love feelings, and distraction) change love feelings, valence of affect, and motivated attention for the ex-partner. Participants (n = 24) who were upset about a romantic break-up performed the regulation strategies before passively viewing a picture of their ex-partner, during which their electroencephalogram was recorded. Negative reappraisal decreased love feelings and made participants feel more unpleasant, both ps < 001. Love reappraisal did not change how in love or pleasant/unpleasant participants felt. Distraction did not change love feelings but made participants feel more pleasant, p = .010. So, in the context of a romantic break-up, negative reappraisal is an effective love down-regulation strategy, whereas distraction is an effective positive emotion up-regulation strategy. Furthermore, all three strategies decreased motivated attention for the ex-partner, as indicated by a reduced amplitude of the late positive potential, all ps < .042. This reduced motivated attention for the ex-partner could make it easier to deal with encounters of (reminders of) the ex-partner. Love regulation is a promising phenomenon with important everyday life and clinical implications.

POSTER SESSION B
Friday, April 27, 2018
6:00 p.m.-7:15 p.m.

POSTER B-1

THE IMPRESSIONABLE SOCIAL SELF OF SCHIZOPHRENIA: NEURAL CORRELATES OF SELF-OTHER CONFUSION AFTER SOCIAL INTERACTION

Daina Crafa, Caitlin M. Stoddart, Carolina Makowski, Martin Lepage, Mathieu B. Brodeur
McGill University

Descriptors: self-identity, prefrontal activity, sasta paradigm

Social interactions require rapid, real-time information integration and performative application of dynamic social information, and can be especially difficult for patients with schizophrenia. Their difficulty processing social information could lie in challenges extracting the information or in updating their actions to accommodate the new information, resulting in behaviors that may appear rigid or inappropriate. Disruptions may be reflected in neural processes. Seventeen matched healthy controls and seventeen patients with schizophrenia participated in an fMRI study, which included a social interaction priming procedure wherein they met a friendly stranger who held opposite social values from their own. They answered self-judgement questions about their social values two days before the priming experiment and again during the fMRI scan. Controls suppress social values when interacting with the stranger whereas patients with schizophrenia augment the opposite values, simultaneously holding two sets of social values, $F(2,64)=6.61$, $p=.002$. Compared to controls, patients display hyperactivity in dorsomedial prefrontal cortex (dmPFC) and atypical activity in caudate, posterior cingulate and precuneus. Patients appear to correctly extract social information but apply the information atypically. They display evidence of atypical social flexibility on both performative and neural measures, resulting in confusion between self and other.

POSTER B-2

DIMINISHED POSITIVE EMOTION LINKAGE BETWEEN PATIENTS WITH BEHAVIORAL VARIANT FRONTOTEMPORAL DEMENTIA AND THEIR CAREGIVERS

Kuan-Hua Chen[1], Anna Sapozhnikova[1], Casey L. Brown[1], Alice Y. Hua[1], Marcela C. Otero[1], Jenna L. Wells[1], Bruce L. Miller[2], Barbara L. Fredrickson[3], Robert W. Levenson[1]
[1]University of California, Berkeley, [2]University of California, San Francisco, [3]University of North Carolina at Chapel Hill

Descriptors: social interaction, positive emotion, frontotemporal dementia

Positive emotion linkage during social interactions (i.e., responding to other people's positive emotions with positive emotions) is important for close relationships. Social behavior is dramatically altered in behavioral variant frontotemporal dementia (bvFTD), a form of dementia that targets brain regions critical for emotional functioning. Previous research has focused on characterizing emotional changes within patients with bvFTD; there has been less work on how the disease affects the interactions between the patients and their close others. We hypothesized that, compared to patients with Alzheimer's disease (AD; n=23) and healthy controls (n=17), patients with bvFTD (n=23) would show diminished positive emotion linkage with their caregivers during a 10-minute conversation about an area of disagreement. Positive emotional behaviors of each partner were coded throughout the conversation using the Specific Affect Coding System. We computed a time series of the absolute values of Pearson's correlations between patient's and caregiver's positive emotional behaviors using a 15-second rolling window. For comparison, we used the same method to compute linkage of negative emotional behaviors. Results indicated that positive emotion linkage was significantly lower in bvFTD dyads than AD and control dyads (ps<.034). In contrast, there were no differences among the three kinds of dyads in negative emotion linkage. These findings provide evidence that bvFTD undermines aspects of positive emotional behavior important for patient's social interactions with close others.

POSTER B-3

EXPERIENCES OF PLEASURE DURING SOCIAL INTERACTION IN SOCIAL ANHEDONIA AND CONTROLS

Melody M. Moore, Elizabeth A. Martin
University of California, Irvine

Descriptors: social anhedonia, anticipatory pleasure, consummatory pleasure

Social anhedonia (SocAnh), characterized by reports of decreased pleasure obtained from social interactions, is a symptom found in the general population indicative of vulnerability to developing schizophrenia-spectrum disorders. Although SocAnh is characterized by social dysfunction, little research on individuals with SocAnh has examined emotion during an actual social interaction. That is, most work has used questionnaire measures of pleasure about abstract social interactions rather than measuring in-situ. Thus, the current study examined anticipatory and consummatory (i.e., in-the-moment) pleasure for an in-lab social interaction, the Interpersonal Closeness Generation task, between individuals with elevated SocAnh (n = 15) and healthy controls (n = 31). During this task, participants asked and answered a series of questions while seated with a peer interaction partner who, in reality, was a confederate researcher. While data collection is ongoing, preliminary results suggest SocAnh is associated with decreased anticipation of pleasure but similar levels of consummatory pleasure. Specifically, the SocAnh group anticipated that the social interaction would put them in a good mood for less time than controls, $t(35.13)=2.18$, $p<.05$, $d = .74$. At the same time, SocAnh reported similar consummatory levels of PA during the social interaction, $t(44)=1.51$, $p=.13$, $d = .46$. Results suggest individuals with SocAnh may habitually anticipate decreased PA in spite of experiencing similar levels to controls.

POSTER B-4

EMOTION REGULATION IN DAILY LIFE AND THE ROLE OF EMOTION DIFFERENTIATION

Yasemin Erbas[1], Elise Kalokerinos[1,2], Eva Ceulemans[1], Peter Kuppens[1]
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Descriptors: emotion differentiation, emotion regulation, daily life study

Emotion differentiation is the ability to experience emotions and put them into words with a high degree of complexity (Kashdan, Barrett, & McKnight, 2015). High levels of differentiation of negative emotions are beneficial for well-being, but little is known about the processes underlying this relationship. It has been proposed that emotion differentiation is associated with well-being because it facilitates effective emotion regulation, but there is not yet strong empirical evidence for this pathway. In this study, we tested how emotion differentiation relates to emotion regulation in daily life. In a week-long experience sampling study following an emotional event (N=101), we examined 1) whether low differentiators use different emotion regulation strategies than high differentiators, and 2) whether the use of regulation strategies have different consequences for low vs. high differentiators. We found that lower negative emotion differentiation was associated with increased use of the putatively maladaptive emotion regulation strategies rumination (p=.04) and expressive suppression (p=.03). Furthermore, low differentiators experienced greater negative emotion in response to rumination (p=.02), distraction (p<.001), nonacceptance (p<.001), and social sharing (p=.01) than high differentiators. In sum, these findings indicate that low differentiators make more use of maladaptive emotion regulation strategies, and that the use of such strategies is more strongly associated with negative emotions for low than for high differentiators.

POSTER B-5

SEMANTIC GENERALIZATION OF FEAR CONDITIONING ACROSS LANGUAGE

Laurent Grégoire, Steven G. Greening
Louisiana State University

Descriptors: fear conditioning, semantic generalization

The aim of this study was to observe if the fear conditioning can be generalized across language. Sixteen English-Spanish bilinguals performed a conditioning task in which an English neutral word was associated with a shock (CS+ shock) whereas the equivalent Spanish word was never paired with a shock (CS+ no shock). We also used a CS- in each language (a neutral word and its equivalent). Fear conditioning (CS+ compared to CS-), as measured by electrodermal activity (EDA), was observed in English and Spanish, $t(15) = 3.23$, $p = .006$, $d = .81$, and $t(15) = 3.14$, $p = .007$, $d = .79$, respectively. The conditioning effect was not different between the two languages, $t(15) = 0.85$, $p = .411$. Evidence for fear conditioning was also observed in self-reported fear of shock in English and Spanish, $t(15) = 4.07$, $p = .001$, $d = 1.02$, and $t(15) = 2.15$, $p = .048$, $d = .54$, respectively, and the effect was greater in English than in Spanish, $t(15) = 3.28$, $p = .005$, $d = .82$. Overall, results showed a generalization of fear conditioning across language and a dissociation between physiological (EDA) and subjective markers of fear. Results were replicated (with the same sample of participants and different words) using Spanish as the conditioned language and English as the unconditioned language. This study extends knowledge about fear generalization and demonstrates that fear conditioning can affect semantic representations of neutral words independent of perceptual features.

POSTER B-6

TIMING IS EVERYTHING: INCREASED TIME BETWEEN THREAT INDUCTION AND ENCODING ENHANCES MEMORY SELECTIVITY IN YOUNGER BUT NOT OLDER ADULTS

Kelly A. Durbin[1], David Clewett[2], Ringo Huang[1], Mara Mather[1]
[1]University of Southern California, [2]New York University

Descriptors: selective memory, threat, age differences

When confronted with a threatening situation, people selectively enhance their attention to the most important information while simultaneously ignoring any irrelevant or distracting information. Suppressing distractors under threat requires inhibitory mechanisms, which take time to recruit and often decline in older age. In this study, we examined how time and older age affect memory selectivity under threat. We asked 32 younger and 31 older adults to encode task-relevant scenes while ignoring irrelevant objects that were superimposed onto the scenes. Half of the images were preceded by the threat of monetary loss if participants forgot these to-be-remembered scenes. We also varied the time between threat induction and the to-be-encoded scenes (2s, 4s, 6s). An age-related difference in the enhancement of task-relevant scenes only occurred after a long delay (i.e., 6s), $F(2, 122) = 3.54$, $p = .032$, eta2 = .06. At 6s, younger adults also showed better memory suppression of irrelevant objects under threat than older adults, $t(61) = 2.57$, $p = .013$, $d = 0.65$. These age differences did not occur at 6s under neutral conditions (both ps > .10). These findings provide evidence to suggest that younger adults benefit from increased time to engage cognitive control processes under threatening conditions. In contrast, in threatening situations memory selectivity is less likely to improve for older adults, regardless of increased preparation time, possibly because of age-related deficits in top-down attention.

POSTER B-7

CHIMPANZEE SOCIO-AFFECTIVE SEGREGATION BY SEX AND SPACE

Ashley M. Murphy[1], Darren E. Minier[2], Eliza Bliss-Moreau[1]
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Descriptors: social behavior, comparative models, sex differences

Wild female chimps spend the majority of their time in the forest canopy while males tend to occupy the floor. Historically, zoos have designed chimp enclosures to be multi-leveled in an attempt to simulate a naturalistic environment but rarely do they include bridges between higher structures. Consequently, females must climb down into male territory to get from place to place. We conducted a study at the Oakland Zoo whose enclosure allows animals to move both horizontally and vertically. We evaluated whether chimps (4 females, 3 males) used the different levels of their enclosure for different types of socioaffective behavior (i.e., groom, aggress, submit) that would closely replicate wild behavioral segregation. We recorded dyadic interactions that varied in socioaffective and the interaction location (low, middle, high). As predicted, female-female social bonding occurred most frequently in the high locations (1001 of 1466 groom bouts) while male-female social bonding occurred predominantly in the middle locations (1036 of 1724 groom bouts), chi-square(4)=613.61, p<0.001. The majority of low interactions were male-male. Aggressive and submissive behavior only occurred in interactions with males, predominantly in high male-male dyads; aggressive: chi-square(2)=6.563, p=0.038; submissive: chi-square(2)=13.121, p=0.001. These results are consistent with behaviors of wild chimpanzees. Due to the social nature of chimps and the impact of social behavior on affect and wellbeing it is important to encourage these species-typical interactions in captive environments.

POSTER B-8

MODELING MEDICAL EMPATHY: PHYSICIANS EXHIBIT INTENTIONAL AND UNINTENTIONAL EMPATHY FOR PAIN

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Descriptors: empathy, physicians, healthcare

Empathy can be both beneficial and costly. This tradeoff is especially pertinent for physicians, who must care for patients while maintaining emotional distance to avoid burnout. Prior work using self-report and physiological measures found mixed evidence for differences in empathy between physicians and non-physicians. Here, we used implicit measurement and multinomial modeling to examine intentional and unintentional empathy for pain in physicians and demographically-matched non-physicians. Relative to controls, physicians displayed greater intentional empathy, or enhanced ability to judge the painfulness of target experiences. Contrary to some prior work, however, physicians and non-physicians displayed comparable unintentional empathy, or spontaneous resonance with distracter experiences. These findings suggest physicians may be more likely than controls to engage in empathy for others' pain when empathy is consistent with their goals.

POSTER B-9

SEEING WHAT YOU FEEL: AFFECT DRIVES VISUAL PERCEPTION OF STRUCTURALLY NEUTRAL FACES

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Descriptors: person perception, affect, vision

Affective realism, the phenomenon whereby affect is integrated into an individual's experience of the world, is a normal consequence of how the brain processes sensory information from the external world in the context of sensations from the body. In the present investigation, we provide compelling empirical evidence that affective realism involves changes in visual perception of people (i.e., affect changes how participants see neutral stimuli). Across two studies, we utilize an interocular suppression technique, continuous flash suppression, to present affective images outside of participants' conscious awareness. We demonstrate that seen neutral faces are perceived as looking more smiling when paired with unseen affectively positive stimuli. Study 2 also demonstrated that neutral faces are perceived as looking more scowling when paired with unseen affectively negative stimuli. These findings have implications for real world social situations and challenge beliefs that affect is a distinct psychological phenomenon that can be separated from cognition and perception.

POSTER B-10

ADOLESCENT EMPATHIC PERSPECTIVE-TAKING IS ASSOCIATED WITH GREATER LEARNING AND THIS EFFECT IS MODERATED BY CONNECTIVITY AT REST BETWEEN THE RIGHT ANTERIOR INSULA AND THE MEDIAL PREFRONTAL CORTICES

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Descriptors: perspective taking, learning, brain connectivity

Empathic perspective taking (EPT), or imagining another's cognitive and affective states, is characterized by deep engagement and facilitates social functioning. Learning, which includes making meaning, being curious, and remembering, is supported by social interactions and deep engagement. Can EPT support learning? Previously we found that adolescents who show more EPT show more connectivity between medial prefrontal cortices (MPFC) and right anterior insula (rAI). rAI-MPFC connectivity represents the integration of social emotional feelings with abstract thoughts, which may be important for learning. How does rAI-MPFC connectivity impact the EPT-learning relation? With a sample of 53 adolescents (mean age at time one 15.99 years; 27 female) we examined associations among: rAI-MPFC connectivity during a resting state fMRI brain scan; spontaneous EPT in response to stories of physical and social pain and triumph during an open-ended interview; and learning (i.e., meaning-making about those stories, curiosity about them, and memory for them after 2 years). Controlling for age and verbal IQ, adolescents' tendencies to engage in more EPT predicted more learning. The positive relation was stronger for people with more rAI-MPFC connectivity; rAI-MPFC connectivity moderated the relations between EPT and a) meaning-making $F_{(1,41)}=3.86$, $p=0.056$, partial eta squared (PES)=0.09, b) curiosity $F_{(1,41)}=7.15$, $p=0.01$, PES=0.15, and c) long-term memory $F_{(1,40)}=5.10$, $p=0.03$, PES=0.11. This suggests a role for EPT in learning and a biological marker of people most able to learn through EPT.

POSTER B-11

FEELING BAD FOR THE BENEFIT OF OTHERS: INSTRUMENTAL EMOTION REGULATION SERVES AS A MEANS TO PROSOCIAL BEHAVIOR

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Descriptors: instrumental emotion regulation, helping, prosocial behavior

According to the instrumental approach to emotion regulation, people are motivated to seek potentially useful, albeit unpleasant, emotions to attain their goals. Might people also be motivated to experience emotions that are useful to attain goals that benefit other people? Our study modified the computer game paradigm (Tamir et al., 2008), in which 172 undergraduate students (68 percent female; mean age = 20.73) played an avoidance (of zombie) game and then drew a lottery that would go to either themselves (personal condition) or a beneficiary (helping condition). While we predicted that participants would prefer to experience fear that would facilitate the pursuit of avoidance goal which increases the chances of winning a lottery, we tested whether participants in two conditions would indicate preferences for fear either for themselves (personal condition) or for a beneficiary (helping condition). As predicted, results did not find a significant Condition X Goal X Emotion interaction, $F_{(4, 167)} = 0.46$, $p =.77$ but revealed a significant Goal X Emotion interaction, $F_{(4, 167)} = 176.94$, $p < .001$, partial eta squared = .81, suggesting that same as participants in the personal condition, those in the helping condition preferred to experience fear in the pursuit of an avoidance goal even when their extra monetary reward would go to a beneficiary. These findings extend the current understanding of the instrumental emotion regulation: People are motivated to experience unpleasant emotions for the benefits of not only themselves but also others.

POSTER B-12

BACKHANDED COMPLIMENTS: HOW NEGATIVE COMPARISONS UNDERMINE FLATTERY

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Descriptors: interpersonal perception, status, self-presentation

Backhanded compliments—seeming praise that draws a comparison with a negative standard ("You were confident in your talk…for a young woman.")—are pervasive. Across seven studies (N = 2352), we examine the psychology of backhanded compliments, a distinct self-presentation strategy characterized by two goals: conveying status and eliciting liking. From delivering feedback in work settings to communicating in casual conversation, we find that backhanded compliments are common in everyday life, take several distinct forms, and are viewed negatively by recipients (Studies 1a-b). People erroneously believe that delivering backhanded compliments will both convey high status and elicit liking (Studies 2a-2b), but recipients of backhanded compliments and third-party evaluators grant neither status nor liking to those who deliver backhanded compliments (Study 3a-3b), and backhanded compliments reduce recipients' motivation to succeed by harming their perceptions of their own ability (Study 3c). Across our studies, we identify the mechanisms underlying the negative effects of backhanded compliments: giving a backhanded compliment is seen as reflective of a concern with one's self-image (driving negative perceptions of compliment givers), while receiving backhanded compliments causes recipients to feel that they have low standing in an ability distribution (driving their reduced motivation).

POSTER B-13

GLOBAL POSITIVITY RESONANCE VS. SHARED POSITIVE AFFECT AS INDICATORS OF LONG-TERM MARITAL SATISFACTION: A COMPARISON OF TWO BEHAVIORAL CODING SYSTEMS

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Descriptors: positivity resonance, long-term marriage, relationship satisfaction

Marital relationships play an important role of adult life, however great variability exists in marital satisfaction. Positivity resonance (i.e., moments of shared positive affect, mutual care and behavioral synchrony) is theorized to build relationship resources that contribute to greater relationship satisfaction (Fredrickson, 2016). We developed a novel behavioral coding system for capturing global positivity resonance between romantic partners. The current study examined the relationship between behavioral coding of global positivity resonance and marital satisfaction, compared to shared positive affect alone. 114 long-term married couples were brought into the laboratory and participated in a 15-minute conflict conversation while being videotaped for subsequent behavioral coding. Marital satisfaction was assessed using two validated self-report inventories. Shared positive affect was coded using a well-validated behavioral coding system for dyadic interactions (Specific Affect Coding System; Coan & Gottman, 2007). A hierarchical linear regression indicated that global positivity resonance predicted overall marital satisfaction above and beyond shared positive affect alone (standardized beta= .249, t (1,110) = 2.290, p= .024). Findings are consistent with the hypothesis that positivity resonance contributes to relationship satisfaction, and suggest that behavioral coding of global positivity resonance is a stronger predictor of marital satisfaction than traditional behavioral coding of shared positive affect alone.

POSTER B-14

REDUCING RUMINATION USING SELF AND SOCIAL REGULATION TRAINING

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Descriptors: training, reappraisal, social-regulation

Despite the demonstrated link between emotion regulation and well-being, little is known about the emotional consequences of regulating the emotions of others and of receiving emotion regulation support. Healthy individuals participated in a three-week training study in which they were randomly assigned to one of four groups: self-regulation, regulation-providing, regulation-receiving, or no-regulation. Participants in the self-regulation and regulation-providing groups practiced the use of reappraisal on either personal events (self-regulation group) or on events provided by a fellow participant (regulation-providing group). Participants in the regulation-receiving group received emotion regulation support for personal events. Training effect on rumination was predicted by the emotional tone of the reappraisal. Specifically, among participants in the self-regulation group, individuals who wrote more positive reappraisals showed larger reduction in rumination following the training. However, among participants in the social-regulation groups (recipients and providers), higher positivity of the reappraisal was associated with increase in rumination. These findings suggest that when reappraising our own emotions, it is beneficial to use a positive reappraisal. In contrast, when providing emotional support for another person, it is beneficial to match the emotional tone of one's response to the tone of the event.

POSTER B-15

THE INFLUENCE OF CONTEXT ON DISTINCT FACIAL EXPRESSIONS OF DISGUST

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Descriptors: emotion perception, context, disgust

Face perception is susceptible to contextual influence and perceived physical similarities between emotion cues (Aviezer et al., 2008). However, studies often use structurally homogeneous facial expressions, making it difficult to explore how within-emotion variability in facial structure affects emotion perception. This study examined the influence of context on the emotional perception of categorically identical, yet physically distinct, facial expressions of disgust. Participants (n=31) categorized two types of perceptually distinct disgust facial expressions, 'closed' (i.e., scrunched nose, closed mouth) and 'open' (i.e., scrunched nose, open mouth, protruding tongue), which were embedded in non-facial contexts comprised of emotion postures and scenes depicting disgust, anger, fear, sadness, joy, or neutral affect. Results demonstrated that participants' categorizations matching the face (i.e., disgust) were significantly lower for 'open' disgust faces than 'closed' faces, $F(4, 1540)=11.11$, $p<.001$, partial eta-squared=.03. Notably, a significant increase in categorizations matching non-facial contexts was observed for contexts of fear (Mean-Open = 86% vs. Mean-Closed=53%), $t(1540)=3.48$, $p=.001$, an emotion typically reported as resistant to contextual influence. This is the first study to demonstrate that differences in physical structure within discrete categories of affective facial expressions can result in varying confusability effects of face perception. Implications for the perceptual similarity hypothesis of emotion perception will be discussed.

POSTER B-16

FEAR INCREASES WILLINGNESS TO TURN TO OTHERS

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Descriptors: fear, support, advice

Individuals often turn to others when dealing with challenging situations, striving towards valued goals, or making important decisions. Because turning to others may bolster self-confidence and empowerment, people may be more likely to turn to others when experiencing low certainty and control emotions, such as fear. In two experiments, we examined whether experimentally-induced fear increased (and anger decreased) willingness to turn to others for advice or support, and whether the influence was different depending on whether emotion was related (i.e., integral) or unrelated (i.e., incidental) to the decision to turn to others. In Experiment 1 (n=1954), we examined whether incidental fear and anger influenced willingness to consult close others about an ambiguous risk tradeoff decision. In Experiment 2 (n=267), we examined whether induced fear (or anger/ sadness) influenced willingness to talk to others about a negative situation, and whether this influence differed depending on whether the emotion was integral or incidental to the negative situation to be discussed. In both experiments, we found that incidental fear increased willingness to turn to others, whereas incidental anger (and sadness) had no influence. Integral fear increased willingness to turn to others even more than incidental fear, as did integral anger. Findings suggest that fear may encourage people to turn to others in ways that may facilitate better outcomes. Moreover, findings suggest that incidental and integral emotion may influence decision making in differential ways.

POSTER B-17

EXTRACTING FACIAL SYNCHRONY FROM VIDEOS OF NATURALISTIC DYADIC INTERACTION

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Descriptors: synchrony, facial features, signal processing

Studies of nonverbal behavioral synchrony between interaction partners have often focused on movement of the hands, head and postural changes, but not facial features. Yet, facial movements are widely studied by emotion researchers, and facial synchrony may play a critical role in the relationship between interpersonal synchrony and affect. Here, we investigate naturally-occurring facial synchrony across 25 dyads comprised of strangers. Dyads were videotaped during a 5-minute, unstructured interaction. We then used a novel video signal processing algorithm to extract continuous measures of movement of eyebrow and lip landmarks for each person. We assessed the extent of facial synchrony in each dyad by correlating movement of each person's facial features with the movement of their interaction partner's features over time, for the whole interaction and in one minute segments. As expected given the naturalistic design, evidence of synchrony was fairly modest across our sample. However, results revealed widespread variability in the amount of facial synchrony, including variability across time, across dyads, and across features. For example, in one dyad, partners showed greater synchrony of the eyebrows (r[e] = .14) than of the lips (r[l] = -.01) while the reverse was seen in another dyad (r[e] = .04, r[l] =.13). This non-invasive technique for measuring facial synchrony represents a useful new tool for examining how individuals can influence one another's affective states, particularly in naturalistic settings.

POSTER B-18

DOES SUPPRESSION HINDER PARENTS' SOCIALIZATION BEHAVIORS?

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Descriptors: suppression, parenting

Parents often try to hide their negative emotions from their kids, hoping to protect them from the perceived costs. However, suppression has been linked with greater physiological signs of stress and worse social interactions. Suppression may be particularly damaging in the context of parent-child relationships because it may hinder parents' ability to support their children's emotion regulation. After completing a speech task, 109 parents of 7-10 year olds were randomly assigned to a suppression condition (n=54) or a control condition (n=55) during an interaction with their child. Children were given a set of instructions with pictures and no words to build a Lego house and told to verbally instruct their parent without touching the Legos themselves. Trained research assistants coded parents' behavior during the interaction (ICCs=.79-.99). Parents in the suppression condition expressed less positive mood (d=.40) than control condition parents, but expressed similar levels of negative mood (d=.01). Parents in the suppression condition exhibited less responsiveness (d=.42), less warmth/support (d=.82), and gave less guidance overall (d=.50) than control condition parents. Furthermore, the guidance they did give was lower quality (d=.40). Finally, suppression dyads exhibited lower relationship quality (d=.78) than controls. These effects held when controlling for parent gender and child age. Our results suggest that suppression hinders parents' ability to help their child regulate their emotions.

POSTER B-19

DOES OBLIGING DOCTORS TO BE COMPASSIONATE ACTUALLY WORK? AN EXPERIMENTAL TEST

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Descriptors: compassion, medicine, culture

Introduction: In addition to being an increasingly necessary human virtue, compassion is professionally required in medicine. However, whether obligation increases compassion (and for what types of physicians) is unclear. This report tests whether priming obligation versus autonomy increases self-reported and behavioral compassion in medical trainees. Methods: A sample of 88 medical trainees completed measures of self-construal before being randomized to obligation or autonomy primes. Participants used 100mm VAS to rate patient liking, care, and desire to help; four vignettes varied how patients presented and their degree of responsibility for their suffering. A donation paradigm assessed compassionate behavior. Results: Mixed model MANCOVAs showed that priming obligation marginally increased ratings of patient closeness, $F(1,82) = 2.96$, p=.089, eta2 =.035, and that less compassion emerged for negative patients, $F(1,82) = 9.32$, p=.003, eta2 =.102. However, collectivism and blameworthiness interacted, $F(1,82) = 6.38$, p=.013, eta2 =.072, such that those high in vertical collectivism liked and cared less for the more blameworthy. A further interaction suggested that this pattern was only evident under the autonomy prime. Behaviorally, persons in the obligation condition donated a greater amount of their study earnings, $F(1,65) = 5.06$, p=.028, eta2 =.072. Conclusions: Highlighting obligation appears to increase compassion or, at least, offset the tendency to judge unpleasant or blameworthy patients among those who value obligation, hierarchy and the in-group.

POSTER B-20

AWE AS A SOCIAL EPISTEMOLOGICAL EMOTION

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Descriptors: positive emotion, social status, social learning

Research on awe finds that it influences information processing—making people evaluate information more carefully (Danvers & Shiota, 2017; Griskevicius, Shiota, & Neufeld, 2010)—and social behavior—making people more humble (Stellar et al., in press) and prosocial (Piff et al., 2015). Integrating these findings, I propose that awe plays an important role in social information processing by tracking individuals with cultural expertise. Across three studies (N = 290), I find that when participants rate a target as higher in prestige, they feel more awe for that person. This occurs whether the person is someone the participant has nominated themselves as an example of dominance or prestige, or whether the person is responding to descriptions of dominant and prestigious others generated by others. Highly prestigious people also tend to influence others' opinions, and two studies determine that this effect is partially mediated by experiences of awe. Awe responses to prestigious others explains 1/4 to 1/3 of the effect of prestige on social influence, depending on the study. This effect is specific to prestige as a form of social status—the opposite pattern is seen in dominant individuals. Prestige is a type of status that indexes expertise and freely conferred esteem; dominance comes from the ability to coerce others. Awe is therefore a specific response to another person's "informational goods"—individuals who can serve as wise teachers. I call this a social epistemological view of awe, because it emphasizes how experiencing awe for others can facilitate social learning.

POSTER B-21

ONE SIZE DOES NOT FIT ALL: EFFICACY AND CHOICE OF REAPPRAISAL TACTICS IS EMOTION-DEPENDENT

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Descriptors: cognitive reappraisal

People experience different emotions as a function of their appraisals of the situations they encounter. Building on this notion, we propose that emotion regulation outcomes should vary by the underlying appraisals of emotions. One emotion regulation strategy which influences appraisals is cognitive reappraisal. When people use cognitive reappraisal, they can interpret the emotion-eliciting situation in different ways. These different interpretations are termed "reappraisal tactics" (McRae, Ciesielski, & Gross, 2012). We propose that cognitive reappraisal would be more effective if reappraisal tactics target emotion-specific appraisals. For example, acceptance, which involves recognizing how one feels and accepting the situation as it is, should be effective at regulating an emotion with a high uncontrollability appraisal, such as sadness. However, acceptance may not be effective for regulating a prospective emotion such as fear. In the first study (N = 100), we ran a full factorial within-participant design for three emotions and three reappraisal tactics. Results demonstrated a one-to-one match between each emotion and its corresponding reappraisal tactic, such that 11 out of 12 planned contrasts were significant (all ps < .01). Moreover, these associations were mediated by the underlying appraisal dimensions of the emotions. We replicated this finding in a pre-registered study (N = 40) with a large effect (d = 1.79). These findings demonstrate the utility of using appraisal theories of emotion to inform emotion-specific differences in emotion regulation.

POSTER B-22

EMOTION GOAL COMMITMENT

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Descriptors: emotion, emotion regulation, motivation

The outcome of emotion regulation depends on the content of the emotion goal people pursue and on the strategies they use to pursue it. We propose that the outcome of emotion regulation also depends on how committed people are to achieve their emotion goal. Emotion goal commitment refers to the degree to which an individual is determined to pursue an emotion goal. Building on theories of goal pursuit, goal commitment is assumed to vary as a function of the attainability and the desirability of the goal, and it shapes performance. In Study 1 (N = 202), interpersonal variation in emotion goal commitment was positively linked to the desirability (r = .30, p < .001) and attainability (r = .51, p < .001) of the goal, and to emotion regulation efficacy and well-being (e.g., SWB r = .26, p <.001). In Study 2 (N = 104), experimentally increasing the desirability of anger increased self-reported commitment to increase anger; t(102) = 3.00, p = .003, d = 0.60. In Study 3 (N = 82), experimentally increasing the attainability of anger increased self-reported commitment to increase anger; t(80) = 2.08, p = .040, d = 0.46. Finally, in Study 4 (N = 100), experimentally enhancing the desirability of calmness increased the commitment to upregulate calmness and downregulate excitement, as assessed by both self-report and behavioral indices (e.g., Wilks' lambda = 0.89, F [1,104] = 12.67, p < .001, partial eta square = .11). We discuss the implications of emotion goal commitment for successful emotion regulation.

POSTER B-23

WORRY AND RUMINATION: TESTING EXPLANATORY ROLES IN BETWEEN PAIN INTENSITY AND ANXIETY AND DEPRESSIVE SYMPTOMS

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Descriptors: worry and rumination, pain, psychopathology

Pain affects a significant proportion of young adults in the United States, and has been linked to increased anxiety and depressive symptoms. Recent work in affective science has begun to identify transdiagnostic factors that link comorbid conditions, such as pain and mental health. Rumination (R) and worry (W), two related, but distinct transdiagnostic constructs, may explain the relationship between the experience of pain and mental health symptoms. The current study examined a multiple mediation model focused on worry and rumination as explanatory factors in the relationship between pain intensity and anxiety and depressive symptoms in a sample of young adults (n = 1,577) with current pain. Results indicated that both rumination and worry partially explained the relationship between pain intensity and depressive (R: B = 0.24, SE = 0.04, 95% CI [0.16, 0.32]; W: B = 0.05, SE = 0.01, 95% CI [0.03, 0.08]) and social anxiety symptoms (R: B = 0.06, SE = 0.01, 95% CI [0.04, 0.08]; W: B = 0.01, SE = 0.004, 95% CI [0.01, 0.02], while rumination alone partially explained the relationship between pain intensity and anxious arousal symptoms (B = 0.07, SE = 0.01, 95% CI [0.05, 0.09]). The current study provides novel empirical evidence that worry and rumination may help explain the relationship between anxiety and depressive symptoms among young adults with pain. Future work is needed to explore the extent to which young adults in pain may benefit from targeted psychosocial strategies aimed at decreasing worry and ruminative response in terms of anxiety/depressive symptoms.

POSTER B-24

IT WAS A BLOODY GOOD TIME! BLOOD DONOR EMOTION TRAJECTORIES PREDICT REPEAT BEHAVIOR

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Descriptors: emotion trajectory, blood donation, health behavior

Despite recognition that blood donation, like many health-related behaviors, is a highly affective experience, the nature and consequence of donors' emotional experience remain relatively unexplored. No research to date has tracked donor emotional experience live as it arises during the donation process nor established the impact of such experience on return behavior. This field study aimed to fill these gaps. We deployed an experience sampling approach in which whole blood donors (N = 799) reported current levels of several discrete emotions in the waiting area of the donation center, in the phlebotomy chair, and in the refreshment area after donation. Return behavior over the ensuing 6 months was tracked (46.4% returned). Multiple group trajectory modelling identified time-based emotion trajectories and assessed the impact of those trajectories on likelihood of return. Results revealed unique trajectories of several discrete emotions as well as significant impact on return. For instance, whereas mid-range levels of joy were associated with lower likelihood of return (95%CI .26-.43) and mid-high range levels of joy associated with higher likelihood of return (95%CI .48-.62), high levels of joy did not differentially predict return (95%CI .28-.57). By identifying blood donors' emotion trajectories and the impact of those trajectories on return behavior, this research paves the way for development of effective emotion-focused strategies to boost donor retention, such as encouraging donors to engage in emotion regulation techniques that would promote optimal trajectories.

POSTER B-25

FEELING SAFE IN THE MOMENT: SAFENESS AS POSITIVE AFFECT

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Descriptors: feeling safe, safeness

Safety and security are understood to be fundamental human needs, yet few empirical studies have examined the inner experience of feeling safe in the moment. The current study uses the experience sampling method to investigate characteristics of feeling safe in the moment, as well as the relationship between momentary feelings of safeness and other momentary experiences. Multilevel regression analysis revealed that feeling safe in the moment varied within individuals, much the same way emotions do. Feeling safe was predicted by negative emotions and low-arousal positive emotions, but not high arousal positive emotion. Feeling safe was predicted by other momentary experiences associated with felt security, relatedness, competence and autonomy. Contrary to expectations, measures related to safety and security, including attachment style, psychological safety, and social safeness, were not related to individual averages of feeling safe in the moment. Feeling safe was found to be at least as important to people as feeling happy. In light of these findings, further research on feeling safe in the moment is called for.

POSTER B-27

THE EFFECT OF TIME FRAMES ON SELF-REPORT OF EMOTIONS AND SYMPTOMS

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Descriptors: emotion recall, self-report, time frame

Retrospective self-report ratings rely on memory processes. Robinson and Clore (2002) proposed that the degree to which episodic and semantic retrieval contributes to retrospective ratings depends on the accessibility of episodic details, which changes with the length of the reporting period. Following the methods of Robinson and Clore (2002), the present study examined responses to emotion and symptom ratings across a wide range of time frames to estimate the moment of the theorized shift from episodic to semantic retrieval with more precision. A sample of 469 adults reported the extent to which they experienced 8 states (excited, happy, calm, sad, anxious, angry, pain, stress) over twelve time frames ("right now" to "in general"). A series of multilevel growth models and piecewise linear models were used to examine the pattern of response times and response levels across the different time frames. Replicating previous results, both response times/levels increased with longer time frames (all ps < .05). The relationship between the time frames and response times/levels was similar for emotions and symptoms. In contrast to prior work, no consistent evidence was found for a shift in response patterns for longer time frames. Although the current study showed a pronounced effect of time frame on response times, it did not replicate prior findings that suggested a shift from episodic to semantic memory as time frame duration increased. We suggest that research relying on self-report should use the same well-specified time frames across all study measures.

POSTER B-28

FOCUS ON FOCUSED ATTENTION IN MINDFULNESS-BASED INTERVENTIONS

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Descriptors: mindfulness, emotion regulation, sustained attention

Mindfulness consists of both attention regulation and emotional acceptance, reflected in the contemplative techniques: Focused Attention (FA), training to hold the focus on an object while de-selecting irrelevant stimuli, and Open Monitoring (OM), a moment-to-moment awareness of ongoing experience with no de-selection. Both are integrated in Mindfulness-Based Cognitive Therapy (MBCT). The aim of the current 3-armed randomized control trial (N = 104) that separated FA and OM in comparison to MBCT was to assess the cognitive and affective consequences and neural correlates of each practice separately. The talk will focus on emotion and attention regulation aspects by presenting data of the Sustained Attention to Response Task (SART) and the Emotion Reactivity and Regulation Task (ERRT) before and after the treatment. The SART, a Go/No-Go task, measures the ability to self-sustain processing of stimuli. The FA training showed specific consequences on error processing and its neurophysiological correlate error positivity as event-related potential after an erroneous response. In ERRT, pictures of negative, neutral, and positive valence are presented, while activity of corrugator supercilii, an indicator of negative affect, was measured via surface electromyography. The FA training showed specific decrease in muscle activity. Furthermore, wellbeing outcomes revealed a faster improvement for participants in FA whereas OM showed the slowest improvement. We investigate, if FA specifically addresses attentional and/or emotional changes and if these are related to wellbeing.

POSTER B-29

ECOLOGICAL ASSESSMENT OF PHYSICIANS' EMOTIONS: BURNOUT OR BASICALLY OK?

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Descriptors: emotion, burnout, ecological momentary assessment

Standardized measures of burnout evaluate the presence or absence stress but can't explain 'why' we become stressed (stressors) or capture co-occurrence of positive emotion coping. The crisis of burnout among healthcare trainees requires advanced techniques for assessing daily emotion and stressors to inform future, targeted interventions. This multi-method series of studies with n=100 physicians in training evaluates the feasibility of an ecological momentary assessment, EMA, to capture daily emotion episodes at a granular level. The study also provides descriptive daily emotion data of this busy, high burnout population. The EMA, EmoTrak, is a smartphone app which solicits emotion triggers, experiences and responses twice a day. Participants also completed psychometrically validated measures of burnout and stress. The feasibility and acceptability was demonstrated through the retention and completion rates, participants completed an average of 1.4 reports per day, 58% would recommend the app to a colleague and in qualitative interviews reported increased awareness of positive feelings and embodied emotion and improved regulation of emotions. This population has burnout scores higher than national averages for emotional exhaustion (38.89, s.d. 9.73), and depersonalization (15.81, s.d. 5.48). Despite burnout, the most common emotion was happiness at 50% of all emotion episodes, followed by fear (17%), and anger (15%). Triggers to happiness were personal time and social engagement (69%), triggers to fear were work (51%) and anger triggers were social (30%) and personal (20%).

POSTER B-30

THE STRESS–INFLAMMATION LINK IS MEDIATED BY DEPRESSIVE SYMPTOMOLOGY AND MODERATED BY GENDER

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Descriptors: stress, depression, inflammation

Although stress has been linked to depression and inflammation, the extent to which gender alters relationships between stress, depression, and inflammation is relatively unknown. Depressive affect was examined as a statistical mediator of stress and inflammation in cross-sectional data; gender was explored as a moderator in this model. Participants (n=162; 25-65 years old; 67% women) reported depressive symptoms (PROMIS short-form), lifetime stressors (childhood and lifetime adversity), recent stressors (life events [past year]; perceived stress [past month]), and cumulative stressor severity from EMA (past 2 weeks). Inflammatory responses were determined from lipopolysaccharide (LPS) stimulated cytokines in blood collected at the end of the EMA period. Recent stress and inflammatory responses were indirectly linked via depressive symptoms; gender significantly moderated the depression-immune path (IL-6: w=0.070, 95%CI[0.02,0.15]; IL-10: w=0.059, 95%CI[-0.004,0.13]; TNF?: w=0.064, 95%CI[0.02,0.13]). Recent stress related to greater depressive symptoms for men and women; greater depressive symptoms in turn related to higher inflammatory responses in men, but reduced responses in women. Similar patterns were evident for other recent stress measures but no significant effects were found for lifetime stress measures. This research suggests that the relationship between recent stress and stimulated inflammatory responses may be accounted for by depressive symptoms, and that the direction of the relationship between depression and inflammation may be dependent on gender.

POSTER B-31

IN THE TRENCHES: MENTAL HEALTH AND PSYCHOBIOLOGICAL STRESS IN SOUTH SUDANESE REFUGEE CAMP WORKERS

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Descriptors: PTSD, psychophysiology, war

South Sudan has been embroiled in ongoing violence since 1955, and daily trauma, violence, and displacement have become the norm. Emerging reports document that half the population has posttraumatic stress symptoms (PTSS), and a vulnerable group may be paraprofessionals (e.g., tribal chiefs, police) who encounter trauma in their work—at risk to personal wellbeing as well as impacting those they serve. The goal of this presentation is to provide data on the wellbeing of South Sudanese paraprofessionals, incorporating psychobiological regulatory flexibility (measured by heart rate variability [HRV] which also indexes cardiovascular risk in sympathetic and parasympathetic nervous system domains), broad affect dysregulation, and PTSS. Baseline assessments revealed that participants had significant PTSS, with over half the sample meeting diagnostic screening criteria. All participants had HRV within a catastrophic risk range, on average two standard deviations below age-related norms (mSDNN = 32). Possibly due to restricted range, HRV and self-report were not related (all p's < .2), though PTSS was related to affect dysregulation (r = .57, p < .001). These pilot results demonstrate multidimensional need in South Sudan, extending to physical stress and beyond PTSD.

POSTER B-32

USING MACHINE LEARNING TO PREDICT EMOTION GENERATION AND EMOTION REGULATION

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Descriptors: affective computing, machine learning, emotion regulation

By leveraging appraisal theory to train and to test machines, affective computing has begun to model the links between appraisal and emotion. However, emotion regulation has not been modeled using affective computing techniques. Thus, we trained and tested models of the relationships between not only appraisal and emotion, but also between emotion and the use of regulation strategies. Participants were 517 subjects (mean age = 22.87 years old, standard deviation = 10.14 years; 72% female) drawn from three studies that involved the same questionnaires of appraisal, emotion, and regulation strategies. First, we trained classifiers to predict 10 emotions using 15 appraisal features. We implemented 10-fold cross-validation and found that our models were able to classify emotion with moderate precision (mean = .68). However, the sensitivity of our appraisal-emotion models were not strong for all emotion classes (mean F-score = .61); our model particularly excelled at classifying positive emotions. Next, we predicted the use of 8 regulation strategies from the same emotions. Our models were able to classify emotion regulation with high precision (mean = .74) and sensitivity (mean F-score = .75), with higher accuracy for strategies involving engagement rather than disengagement. Our research makes a novel methodological contribution by using machine learning to test the relationships between appraisal, emotion, and emotion regulation, thus expanding the processes modeled in the field of affective computing. Implications for emotion theory and future research will be discussed.

POSTER B-33

RISKY DECISION-MAKING UNDER ECONOMIC INEQUALITY: THE ROLE OF ANGER AND SATISFACTION

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Descriptors: inequality, risk-taking, affect

Economic inequality has been linked to risky decision-making, but the causal relationship between them is unclear. The present research provides evidence for the causal influence of inequality on affective experiences and risk-taking. We experimentally manipulated participants' rank after playing a bogus multi-player online game and the degree of inequality in their monetary earnings from the game (N = 212). Then, we examined participants' risk-taking tendency when presented with a high, medium or low risk option of spinning a wheel that could double or lose all their earnings. Results revealed rank differences in risk-taking as a function of inequality among participants presented with the medium risk option: Low-ranked participants were about 5.5 times more likely to spin the wheel than high-ranked participants under high inequality, OR = 5.57, p = .011, 95% CI [1.47, 21.12], but no difference was observed under low inequality, OR = 0.76, p = .65, 95% CI [0.22, 2.57]. This pattern tracked reported feelings of anger, F(1, 100) = 4.72, p = .032, and satisfaction, F(1, 100) = 4.36, p = .039, among these participants. Specifically, low-ranked but not high-ranked individuals experienced a significant increase in anger and a decrease in satisfaction under high inequality, but no rank differences in these affective experiences were observed under low inequality. No effects of inequality were observed for both high and low risk options. These findings suggest the potential role of anger and dissatisfaction in driving the effect of economic inequality on risky decision-making.

POSTER B-34

BRAIN RESPONSES TO STRESS PREDICT SUBSEQUENT TRIAL-BY-TRIAL SMOKING DECISIONS

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Descriptors: decision-making, self-control, stress

Stress is a major contributor to addiction relapse. Even after quitting or deciding to quit, cravings for tobacco continue and self-control can fail, particularly when exposed to acute stress. To better understand neurobiological mechanisms of smoking relapse, we investigated how cognitive and emotional stressors influence trial-by-trial "real" smoking decisions. While in the fMRI scanner, twenty-five cigarette smokers who abstained from smoking overnight made 200 real smoking choices regarding whether or not to take a puff of an electronic cigarette in three different dual-task conditions (cognitive stress, emotional stress, and non-stress control conditions). Cognitive stress was induced by a concurrent working memory load, and emotional stress was induced by manipulating a chance of aversive electric shock. Both cognitive and emotional stressors increased the probability of making a decision to smoke (i.e., take a puff of an electronic cigarette), t = 2.34, p <.05; t = 2.08, p < .05. In MRI trial-by-trial analyses, the dorsolateral prefrontal cortex (dlPFC) activities measured at the time of stress cues significantly predicted smoking decisions that occurred several seconds later, t = 3.47, p < .005. Furthermore, the influence of dlPFC activity on smoking decisions was mediated by the ventral striatum activities at the time of smoking decisions, t = 2.21, p < .05. Our findings suggest that stress experiences may determine subsequent smoking decisions by systematically altering brain executive and reward system network activities.

POSTER B-35

IDENTIFYING CONTEXTS IN WHICH PSYCHOLOGICAL INERTIA IS MOST INFLUENTIAL

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Descriptors: psychological inertia, defaults, contexts

Prior literature has explored the effects of psychological inertia in the fields of medical noncompliance and financial decision making. However, the boundary conditions in which psychological inertia exists (or does not exist) are not well understood. In a picture-switching context in which participants could leave a default state by pressing a button to view a higher valenced image, they frequently retained the default—displaying psychological inertia (Study 1). The average switching rate across participants (N = 109, M = 29%) replicated prior studies. Interestingly, when choices involved money (instead of IAPS images—Study 1) switching rates reached a ceiling level (N = 88, M = 96%—Study 2). We hypothesized that the numeric nature of decisions involving money activated a schema that drove participants to break their inertial state. Thus, in Study 3, we used the original picture switching context of Study 1, however we divided participants into "numeric label" (valence rating displayed) and "category label" (positive, negative, neutral displayed) groups. Contrary to our hypothesis, there was no significant difference in switching rates across groups (N = 99, p = .77). In a further attempt to activate the money schema we are designing Study 4 in which photos will be associated with a monetary value. We hypothesize associated photos with monetary value will engage numeric schemas therefore decreasing psychological inertia. By learning more about when psychological inertia is most influential we may be better able to help individuals break out of undesirable inertial states.

POSTER B-36

CONSTRUCTING POSITIVITY: ADULT AGE DIFFERENCES IN EMOTIONAL EXPERIENCE AS A FUNCTION OF CONTROL-RELATED APPRAISALS

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Descriptors: appraisal, aging, positive emotion

Older adulthood has been characterized as a time when we experience greater positivity and prefer positive over negative information relative to younger adulthood. Appraisal theories of emotion suggest that differences in emotional experience are the result of differing appraisals. Notably, the interpretation of ambiguous scenarios has provided insight into age differences in emotion; specifically, older adults interpret ambiguity with less negativity than younger adults. We presented 24 older adults and 24 younger adults with 14 ambiguous scenarios. The participants evaluated each scenario on nine appraisal dimensions. There was a significant age group (older, younger) by control appraisal type (self, situational) interaction (F(1,43)=5.88, p=.02, eta-squared=.120). Older adults appraised the scenarios as resulting more from situational control than younger adults (t(43)=-2.09, p=.042), however younger adults appraised the scenarios as resulting marginally more from self-control than older adults (t(43)=1.95, p=.057). After appraising the scenarios, older adults reported more positive emotions than younger adults (t(43)=-3.35, p=.002), but did not differ in negative emotions. Self-control appraisals were related to positive emotions (r(23)=.461, p=.027) for younger adults, but not for older adults. The results support the idea that differences in emotional experience are related to individual differences in appraisals. Moreover, the findings suggest that age-related positivity may be related to the differentiation of control appraisals across the adult life span.

POSTER B-37

THE SEROTONIN TRANSPORTER POLYMORPHISM MODERATES THE INFLUENCE OF NEGATIVE LIFE EVENTS ON DEPRESSION SYMPTOMS IN ADOLESCENTS

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Descriptors: depression, genes, adolescents

The development of depression is thought to be dependent on multiple factors, including the experience of negative life events and inherent characteristics, such as genetic variants. Crucially, it is the interaction between genes and the environment (GxE) which can explain why some people cope with negative experiences better than others. The serotonin transporter polymorphism (5HTTLPR) has been shown to moderate the influence of the environment on depression risk across multiple studies, often finding that the S allele confers some increased risk for depression with increasing levels of negative life events. However, the replicability of this effect has been debated creating controversy in the literature, with some arguing that positive results may be artefacts of underpowered studies. We present data from a large longitudinal study (CogBIAS-L-S) including 504 adolescents at Time 1 (age 12) and 449 at Time 2 (age 14). Moderated regression analysis revealed that negative life events in the preceding 12 months predicted depression, 5HTTLPR had no effect overall, but there was an interaction between 5HTTLPR and negative life events. Follow-up analyses revealed that S/S carriers were most affected by negative life events predicting depression (beta=.70, p<.001) and that L/L carriers were unaffected (beta=.20, p=.11). This supports the idea that the S allele increases sensitivity to the environment and depression risk. Future studies using multiple gene designs will be discussed.

POSTER B-38

PRESCHOOLERS' COMMUNICATION ABOUT DISCRETE EMOTIONS

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Descriptors: emotion communication, attention, emotional development

Knowing where to allocate attention in emotional contexts is critical for emotional development. However, children's differential attention to aspects of emotion contexts as a function of the emotion remains to be studied. We examined preschooler's communication about specific aspects of discrete emotion contexts. 3.5-year-olds (n=17) and 4.5-year-olds (n=23) described 10 images in a picture book to their parent. Each image featured a single child (emoter; half female) expressing an emotion (sadness, anger, disgust, fear, joy) toward an object (referent). Descriptions were coded for child frequency mentioning the emoter, referent, and emotion label, and were analyzed using repeated measures mixed linear modeling.

The 3.5-year-olds only demonstrated a significant main effect of picture emotion for emotion labels, p< .001. Pair-wise comparisons revealed that children labeled the emotion more in sadness and joy than disgust and fear. The 4.5-year-olds demonstrated significant main effects of picture emotion for mentioning the emoter, p= .005, the referent, p< .001, and emotion labels, p< .001. Pair-wise comparisons revealed that children referenced the emoter more in anger and sadness contexts, whereas they mentioned the referent more in joy, disgust, and fear contexts. Children also labeled the emotion more for anger and disgust than joy. This study identifies important differences in how preschoolers communicate about discrete emotions, particularly the specific elements the comprise emotion contexts. Further research examining emotion understanding will be discussed.

POSTER B-39

THINK AGAIN: REAPPRAISAL PROMOTES POSITIVITY AND RESILIENCE IN THE 'FACE' OF UNCERTAINTY

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Descriptors: reappraisal, ambiguity, individual differences

Psychological resiliency is driven by many factors, including the ability to adapt or regulate emotions in a contextually appropriate manner. This is particularly significant when regulatory strategies affect how we interpret ambiguous emotional cues. We have proposed an Initial Negativity Hypothesis that posits that negative interpretations of ambiguity are more automatic and that positivity requires regulation. Here we present a series of studies assessing the relationship between cognitive reappraisal and valence bias, or the tendency to interpret ambiguous cues (surprise faces) as positive or negative. Participants reporting greater use of cognitive reappraisal in daily life showed a more positive valence bias (i.e., more positive interpretations of ambiguous cues; Experiment 1; N=61), and are less likely to shift valence bias in the negative direction following stress (i.e., resilience in the face of stress-related negativity; Experiment 2; N=43) than those who report using cognitive reappraisal less frequently. Further, an intervention using cognitive reappraisal promoted increased positivity (and faster positive ratings) in response to ambiguity (Experiment 3; N=29). Finally, a more positive valence bias at baseline was correlated with better reappraisal ability during this intervention. Collectively, these data support an Initial Negativity Hypothesis by elucidating the role of cognitive reappraisal in positive interpretations of ambiguous cues. We discuss these findings in the context of implicit versus explicit emotion regulation, and psychological resilience.

POSTER B-40

REAL-TIME EMOTION REGULATION = REAL-TIME EMOTIONAL DYNAMICS

Tom Hollenstein
Queen's University

Descriptors: emotion regulation, flexibility, dynamics

One of the biggest challenges in emotion regulation research is capturing what people actually do to regulate their emotions (i.e., strategies). However, with current understanding that no single strategy is putatively "bad" or "good," it becomes clear that it may be less important what individuals do to regulate but that they are able to regulate at all. Hence, from a functionalist perspective, tracking the time course of moment-by-moment changes in and out of emotional states is hypothesized to reveal individual differences in emotion regulation. In this flash talk, I will review recent findings to argue that emotion dynamics are real-time emotion regulation. Across several naturalistic studies, greater variability of real-time emotional dynamics (i.e., lower emotional inertia, greater socioemotional flexibility) consistently show positive relations to social competence and well-being and negative relations to psychopathology. Implications of these findings will be discussed within functionalist and emotion systems frameworks with suggestions for future studies.

POSTER B-41

STRESS REACTIVITY, ANXIETY, AND FUTURE-ORIENTED LANGUAGE IN THE APPRAISAL OF HEALTH-BASED EMOTIONAL STIMULI

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Descriptors: appraisal, stress, temporal language

Research suggests that certain characteristics predispose individuals towards a tendency of appraising events as threatening (rather than challenging) and/or directing their attention towards possible future outcomes. This study examined these associations in the context of health stimuli. As part of a larger study of emotional experiences, 126 undergraduate students completed a battery of psychological questionnaires and viewed a series of health-related videos featuring obese individuals struggling with weight related health challenges. Following each video, participants were asked to type out what the video made them think about. This content was analyzed using LIWC, a text-analysis program that provided measures of emotion (negative and positive) and temporal oriented thinking (past, present and future) language use. When controlling for age/gender, use of future-focused words correlated with generalized anxiety symptoms (r=.207, p<.05), perceived stress reactivity (r=.286, p<.001), and anti-fat attitude (r=.189, p<.05). This pattern of findings suggests that initial appraisal of future consequences when exposed to negative health stimuli is associated with anxious or stress reactive thought/behavior patterns. Moreover, these associations are evident in language use. While the present study highlights the implications of elevated stress reactivity and generalized anxiety symptomatology in the context of health stimuli appraisal and temporal orientation, the findings also highlight how text analysis can be used to explore these intrapersonal processes.

POSTER B-42

LOOKING THROUGH TINTED GLASSES: INFLEXIBLE AND BIASED EMOTIONAL INTERPRETATIONS IN DEPRESSION AND SOCIAL ANXIETY

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Descriptors: interpretation bias, depression, social anxiety

nterpretation bias is plays a critical role in depression and social anxiety. To date, it remains unknown how interpretation bias exerts its toxic effects. Interpretation inflexibility may be an important determinant of how distorted interpretations affect emotional well-being. This study investigated interpretation bias and inflexibility in relation to depression severity and social anxiety. Participants (N=212) completed an emotional variant of the Bias Against Disconfirmatory Evidence task. The task presented three-statement scenarios describing unfolding ambiguous situations. After each statement, participants rated the plausibility of emotional interpretations of the information in the scenario. Scenarios were created so that the third statement disconfirmed the initially plausible interpretations after the first statement. Indexes of positive and negative interpretation bias and inflexibility were extracted through principal component analysis. Multiple regression analyses revealed that depression severity was associated with increased negative (beta=.19, p=.006) and decreased positive interpretation biases. Social anxiety was associated with increased negative interpretation bias (beta=.37, p=.000). Critically, both depression (beta=.19, p=.011) and social anxiety (beta=.28, p=.000) were related to inflexible negative interpretations. These findings suggest that individuals with more severe depression or social anxiety make more biased and inflexible interpretations. Future work examining cognitive risk for depression and anxiety could benefit from examining both these factors.

POSTER B-43

COGNITIVE REAPPRAISAL IN RESPONSE TO NEGATIVE IMAGES IN DEPRESSION: THE ROLE OF TACTICS, SELF-EFFICACY, AND FLUENCY

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Descriptors: emotion regulation, cognitive reappraisal, major depressive disorder

Depressed individuals self-report lower rates of cognitive reappraisal compared to healthy individuals but can be trained to use this strategy effectively in the laboratory. Besides stimulus intensity, habitual underutilization of cognitive reappraisal in depressed individuals may also be associated with reductions in the number of reappraisal tactics utilized, self-reported effectiveness, and expressive ability. Participants were recruited from the community and divided into depressed (DEP; N=37) and non-depressed groups (NDEP; N=44) using established cut-off scores on the Depression, Anxiety, and Stress Scale. An experimental task prompted participants to vocalize either cognitive reappraisal statements or descriptions in response to high and low emotional intensity photographs. Independent raters then transcribed and categorized each reappraisal statement according to nine reappraisal tactics. Although DEP modulated their negative emotions comparably to NDEP, they rated images as more intensely negative, used fewer tactics, and vocalized fewer words across all trials (all ps<.02). DEP also reported marginally reduced effectiveness in implementing reappraisal across all trials compared to NDEP (p=.10). Results suggest that DEP people can generate effective reinterpretations but use fewer tactics and words to engage in cognitive reappraisal. Higher autonomic arousal, indexed by higher subjective negative intensity to stimuli, may also reduce cognitive resources in DEP individuals, leading to reduced habitual employment of this strategy in favor of other strategies.

POSTER B-44

IMBUED AFFECT: USING THE LATE POSITIVE POTENTIAL TO QUANTIFY CHANGE IN EMOTIONAL REACTIVITY OVER THE COURSE OF A TASK

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Descriptors: emotional reactivity, neurophysiology, neuroticism

The late positive potential (LPP), an event-related potential that captures emotional reactivity, has been employed as an objective measure to answer a multitude of questions concerning affective experiences. A wide range of tasks have been used to capture the LPP, however, and several studies have sought to assess whether and how these methodological differences influence observed effects on LPP amplitude. The aim of the present study was to investigate carry-over effects across blocks varying in emotional content, and to what extent these differences relate to trait affective experiences. Participants (n=118) passively viewed affective images while the LPP was recorded, then completed a brief personality inventory. The LPP was operationalized as averages across single blocks organized by valence and arousal categories (i.e. Neutral #1, Pleasant #1, Unpleasant #1, Pleasant #2, Unpleasant #2, Neutral #2) rather than averages across the entire task (e.g., one observation of Neutral, Pleasant, Unpleasant). As expected, the LPP significantly varied as a function of picture type (F(2,214)=215.06, p<.001). Regression results indicated that higher levels of neuroticism predicted a larger increase in LPP amplitude to neutral images, and not valenced images, from time 1 to time 2, Beta=.16; sr2 =2.56%, p<.05. This pattern suggests imbued affect during the second neutral block, whereby viewing emotionally arousing images amplified neural reactivity to subsequent neutral images, specifically among individuals more predisposed to negative affective states.

POSTER B-45

EMOTION AS CONTEXT: THE NATURALISTIC EFFECTS OF EMOTION REGULATION STRATEGIES IN RESPONSE TO DISCRETE EMOTIONS

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Descriptors: emotion regulation, ecological momentary assessment

Some emotion regulation strategies may be similarly effective across contexts (e.g., Aldao & Nolen-Hoeksema, 2012), but certain contexts may moderate the effectiveness of particular emotion regulation strategies (e.g., Troy, Shallcross, & Mauss, 2013). However, no researchers have systematically assessed these effects in one study of many strategies. Further, few researchers have examined the moderating effects of the emotion-to-be-regulated on strategy effectiveness. In this study, 92 undergraduates completed 10 days of ecological momentary assessment, reporting their current mood, recent emotions, and emotion regulation strategies 3 times each day. Using stepwise hierarchical linear modeling, we tested which strategies were associated with mood, regardless of emotion experienced. Then, we tested whether the specific emotion experienced (i.e., anger, anxiety, or sadness) moderated these effects. Acceptance (B = 6.34, SE = 1.59, p < .01) and positive refocusing (B = 4.70, SE = 1.69, p < .01) were associated with a better mood regardless of emotion, while generalizing (B = -4.29, SE = 1.71, p = .01) and substance use (B = -8.47, SE = 2.30, p < .01) were associated with a worse mood regardless of emotion. Emotional suppression (F = 3.46, p = .03) and other-blame (F = 3.65, p = .03) were only associated with a worse mood when used in response to anger, not anxiety or sadness. These results suggest that emotions may be important moderators of strategy effectiveness and provide a framework through which researchers can assess the relative influence of contextual effects.

POSTER B-46

POSITIVE MEMORY RECOLLECTION IN PEOPLE WITH AND WITHOUT SCHIZOPHRENIA: A NARRATIVE APPROACH

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Descriptors: schizophrenia, emotion, incongruent emotion

Narrative approaches can help uncover meaningful differences in people with and without schizophrenia (SZ) in terms of how they construct and derive meaning from their own emotional life events and memories of those events. In this narrative study, we sought to better understand the ways in which people with and without SZ describe emotions in positive memory recollections. We recorded and transcribed interviews with 25 people with SZ and 24 controls (HC) that asked participants to recall and describe a positive memory, and experience the positive emotion from that particular memory. We coded for content, vocal expression, clarity, and laughter, and counted the emotions described during the recollection. We also asked participants to report on their experienced emotion following the memory recollection. We hypothesized that people with SZ would use more negative emotion words, fewer positive words, be less vocally expressive, and include others less often as compared to HC. We found that people with SZ described their memories less clearly (p=0.03), laughed less (p<0.001), were less vocally expressive (p<0.001), described experiences with fewer people (p=0.02), but did not differ in positive and negative emotion word usage (p>0.05). Our results suggest that certain areas of emotional organization and expression (e.g., clarity and vocal expression) are not necessarily related to how emotion words are conveyed in narratives, suggesting it is important to distinguish and separate these ways of conceptualizing emotion.

POSTER B-47

EMOTIONAL AWARENESS CORRELATES IN AN ETHNICALLY DIVERSE SAMPLE OF SCHIZOTYPY CLUSTERS

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Descriptors: cluster analysis, schzotypty, emotional awareness

Schizotypy, a multidimensional construct, has been associated with a number of emotional abnormalities. However, it is unclear the extent to which different dimensions of schizotypy exhibit differences in emotional awareness, an aspect of emotion processing linked to many real world outcomes. In the current study, we used cluster analysis to explore correlates of emotional awareness in schizotypy clusters using an ethnically diverse nonclinical sample (N = 1443). Consistent with prior research, four schizotypy clusters were obtained: low (nonschizotypic; L), high positive (P), high negative (N) and mixed (high positive and high negative; M). We found significant cluster differences in all emotional awareness correlates, (F(3, 1439)s > 9.42, ps < .001, eta squared > .02). Post-hoc tests revealed that relative to the low scoring cluster, (a) all other clusters exhibited less emotional clarity, with the mixed cluster showing the least (M < P = N < L; ts < -0.30, ps < .001); and (b) the negative and mixed clusters had decreased attention to positive emotions (M = N < P = L; ts < -0.77, ps < .001) and increased attention to negative emotions (M = N > L; N > P = L; ts > 0.36, ps < .001). Our results show that the effects of positive and negative schizotypy are additive for emotional clarity, whereas attention to emotion deficits are largely driven by negative schizotypy. The current study highlights the heterogeneity among schizotypy dimensions, with the coexistence of both dimensions associated with a broader range of emotional awareness deficits.

POSTER B-48

DO PEOPLE USE POSITIVE EMOTIONS AS TOOLS?

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Descriptors: emotion regulation, positive emotions, emotional intelligence

Numerous studies have demonstrated the social-functional benefits of distinct positive emotions such as pride, gratitude, and compassion. This raises two heretofore unanswered questions: (a) Are people aware of these functions? and (b) Do people use positive emotions as tools, by intentionally trying to feel positive emotions in situations in which those emotions would have functional benefits? To begin answering these questions, we asked participants (N = 213) to consider 10 scenarios in which one positive emotion would be functional (i.e., the target emotion). One version of each scenario was controllable (e.g., gratitude would be immediately functional if someone received a gift and the benefactor was present), whereas a second version was uncontrollable (e.g., gratitude would not be immediately functional if someone received a gift and the benefactor was absent). Participants were asked to select the most useful positive emotion to experience during each scenario out of five options: authentic pride, hubristic pride, love, compassion, and gratitude. In controllable scenarios, participants selected the target emotion much more frequently (54%) than (a) other positive emotions (6%; p < .001); and (b) in corresponding uncontrollable scenarios (37%; p < .001). These findings provide initial evidence that people are aware of the contexts in which positive emotions would or would not be useful to feel, setting the stage for work which directly tests whether people in fact use positive emotions as tools.

POSTER B-50

TOWARD AN INTEGRATIVE SOCIAL EMOTION REGULATION FRAMEWORK

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Descriptors: interpersonal emotion regulation, social interaction, social emotion regulation

In social contexts, emotion regulation often entails use of a broader set of strategies than when regulating on one's own. Despite this recognition, it remains unclear how best to address the rich breadth of regulatory processes involved in social emotion regulation. Building systematically on recent interpersonal emotion regulation theory, here we introduce an integrative theoretical framework for social emotion regulation that spans both interpersonal and intrapersonal strategies by which people seek to regulate their own and/or others' emotions in social contexts. Mapping regulatory strategies according to the three dimensions of this framework—intrinsic versus extrinsic, response-dependent versus response-independent, and intrapersonal versus interpersonal—reveals strategies that have received limited theoretical and empirical attention, such as socioemotional influence avoidance, remote regulation, expressing need for space, and deflecting social attention. We highlight the potential added explanatory power of an integrative framework for guiding research on complex social dynamics with consequences for mental health, relationship quality, prosocial action, and other significant domains of social behavior. The wide-angle lens of this new framework is designed to integrate diverse lines of emotion regulation research, and to provide a tractable approach for investigating relations between the varied strategies that people use to navigate their social lives.

POSTER B-51

IS EMOTIONAL BEHAVIOR STIMULUS-DRIVEN OR GOAL-DIRECTED?

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Descriptors: goal-directed, stimulus-driven, emotion theory

A recently developed account of emotional behavior proposes that emotional behavior is determined by a goal-directed process and not a stimulus-driven process as many emotion theories suggest (Moors, Boddez, & De Houwer, 2017). In a stimulus-driven process, an association between the representation of stimulus features and the representation of a behavior determines the behavior, whereas in a goal-directed process the expected utilities of different behavior options are assessed and the behavior option with the highest expected utility is chosen. The expected utility is a function of the subjective value of an outcome (e.g., satisfaction of a goal) and the subjective expectancy that a behavior will lead to this outcome. We examined whether emotional behavior elicited by social exclusion could be explained by a goal-directedness process instead of by often-proposed stimulus-driven processes. In two experiments, participants (N = 178, N = 101) were excluded using the cyberball paradigm (Williams, 2007), and were then either assigned to a condition in which they could choose to send aggressive or prosocial messages to the other players or to a condition in which they could send aggressive, prosocial, or moralizing messages. We assumed that the expected utility would be highest for aggressive behavior in the first condition, but for moralizing behavior in the second condition resulting in the corresponding behaviors. The results in both experiments confirmed our hypothesis (p <0.001), supporting the idea that a goal-directed process can determine emotional behavior.

POSTER B-52

SHAME ON ME FOR NEEDING YOU: RESULTS OF A DAILY DIARY STUDY OF INTERPERSONAL EMOTION REGULATION

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Descriptors: interpersonal emotion regulation, shame

Interpersonal dimensions of emotion regulation are increasingly receiving attention from affective scientists, reflecting the view that interpersonal and emotion functioning are fundamentally entangled. Prior research indicates that interpersonal emotion regulation is common and can be effective, but potential toxic side effects of interpersonal emotion regulation, such as shame, have been less frequently explored. We used daily diary methods to capture participants' experiences of interpersonal emotion regulation in daily life, focusing on the degree to which participants experienced such interactions as shame-inducing. Our results suggest that experiencing moderate or greater levels of shame as a consequence of interpersonal emotion regulation interactions is a not uncommon experience, occurring in over a third of all relevant interactions. Participants' perceptions of their interaction partners as being more harsh or critical were associated with diminished overall effectiveness and greater shame. Perceptions of higher levels of empathic responding were associated with greater effectiveness, but were not significantly associated with shame, whereas expressions of confidence were associated with relatively less shame, but were not significantly associated with effectiveness. These results suggest that specific partner response behaviors are differentially associated with relevant outcomes of interpersonal emotion regulation, thereby contributing to an emerging understanding of 'what works' in interpersonal emotion regulation.

POSTER B-53

SOCIAL INTERACTION ALTERS NEURAL REPRESENTATIONS OF SELF-IDENTITY: EVIDENCE OF NEURAL PRECURSORS TO SOCIAL LEARNING

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McGill University

Descriptors: self-identity, social values schema, Sasta paradigm

Social interaction requires enough social flexibility to accommodate an interlocutor's perspective. Our previous research demonstrated that suppression of self-identity may be necessary during a social interaction with a friendly stranger if they have different social values. The present study examines neurobiological mechanisms responsible for suppressing self-identity and entertaining the stranger's perspective. Eighteen participants underwent an fMRI scan after having a social interaction with a stranger. We hypothesized that pairing of activation in the inferior frontal gyrus (IFG) and dorsomedial prefrontal cortex (dmPFC) because they reflect activation of self-regulation and changes in self-identity. Brain activity in the IFG and dmPFC emerged, supporting our hypothesis and previous behavioral findings, $F(2,34)=8.23$, $p=.002$. These findings suggest that social interaction influences self-identity on a neurobiological level and that neurobehavioral suppression of the social self may be a precursor to cultural learning.

POSTER B-55

ARE WE IN SYNC? EMOTION REGULATION DYNAMICS IN A SOCIAL INTERACTION

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Descriptors: emotion regulation, social relationships, dynamics

Social interactions are the most common context for emotion regulation. They activate social goals and shape how people regulate. However, little is known about how emotion regulation unfolds in a social interaction or the extent to which it is linked between partners. In this study, we had 113 romantic couples, ages 18-59 years (mean=21.50, standard deviation=4.33) engage in a 10-min conflict discussion. Afterwards, they watched a video-recording of the discussion. They provided online ratings of their emotion regulation by stopping the video each time they regulated and indicating which of 10 strategies they used. This novel measure was used to calculate overall use of each strategy, and dynamic indices of emotion regulation, which included the range of strategies used, proportion of strategy switches, number of regulatory episodes, average time between regulatory episodes. On average, people used four strategies (standard deviation=1.83), switched to a different strategy 71% of the time (standard deviation=18), and regulated 8 times (standard deviation=4.60), with a new episode every 1 and a half minute (standard deviation=54.70 sec). Surprisingly, there was little similarity between partners in emotion regulation indices (Pearson's r=.08-.12, p-values>.05). These results suggest that emotion regulation is a constant but shifting aspect of social interactions. Regulators draw on a wide range of strategies and flexibly adjust their tactics to meet the demands of the situation. However, social partners do not necessarily regulate their emotions in a similar way.

POSTER B-56

SUBJECTIVE SOCIAL STATUS PREDICTS PSYCHOLOGICAL AND PHYSIOLOGICAL STRESS RESPONSES AMONG LATE ADOLESCENTS

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Descriptors: stress, physiology, fear

Subjective social status (SSS), one's appraisal of social standing, predicts mental and self-rated health beyond socioeconomic status (SES; Adler et al., 1994; Scott et al., 2014). Low SSS may contribute to poorer mental health via increased stress responses (Obradovic, 2015), including affect, the hypothalamic-pituitary-adrenal (HPA) axis and the parasympathetic nervous system (PNS) responses. This study assessed links between school and community SSS and stress responsivity to a social-evaluative stressor among late adolescents. Late adolescents (N = 86; Mage = 18.39 years, SD = 0.51) reported SES and SSS with respect to their school and community and completed the Trier Social Stress Test (TSST). Affect reactivity was assessed using the PANAS (difference score pre- and post-TSST). HPA-axis reactivity and recovery were assessed using salivary cortisol. PNS reactivity and recovery were assessed using respiratory sinus arrhythmia. Regression analyses controlling for demographic factors and SES (annual family income, parents' education) showed that school SSS did not predict stress responsivity. Lower community SSS predicted greater fear reactivity (B = -0.17, p = 0.01), greater HPA-axis recovery among (B = -0.24, p = 0.04), and greater PNS recovery (B = 0.46, p = 0.01). Community SSS did not significantly predict HPA-axis reactivity after controlling for SES and only predicted PNS reactivity in youth in high school. These results suggest SSS predicts greater stress responses. These findings also have implications regarding mental health and concordance of stress systems.

POSTER B-57

ALEXITHYMIA IN INDIVIDUALS WITH CHRONIC PAIN AND ITS RELATION TO PSYCHOLOGICAL SYMPTOMS AND PAIN CHARACTERISTICS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Descriptors: chronic pain, alexithymia, depression

Alexithymia (deficient emotional identification, description, and introspection) is associated with chronic pain (CP) as well as affective symptoms (e.g., depression, anxiety). Alexithymia may help explain the frequent co-occurrence of pain and mood disorders. To synthesize the literature and identify knowledge gaps, we conducted a systematic review and meta-analysis to compare alexithymia levels in in people with or without CP and relate alexithymia to pain characteristics and affective symptoms. We searched MEDLINE, Embase and PsycINFO from inception through June 2017; 77 studies met criteria (valid assessment of alexithymia in adults or children with any CP condition) and were included in analyses (N = 8,010). CP samples had significantly higher mean alexithymia scores than controls (d = 0.81, p < .001). In CP samples, alexithymia was significantly associated with greater depression (d = .49; CI[.40,.57]), anxiety (d = .41; CI[.27,.55]), pain intensity (d=.24, CI[.13,.35]), and disability (d=.19, CI[.10,.28]). There was considerable heterogeneity in included studies; however, relationships remained significant when accounting for publication bias. Meta-analysis findings demonstrated that alexithymia is elevated in people with CP and positively related to anxiety, depression, pain severity, and disability. Few studies investigated alexithymia in children with chronic pain or used non-self-report alexithymia measures. Alexithymia may constitute a shared mechanism underlying comorbid CP and mood disorders, which may be an important target for psychological CP interventions.

POSTER B-58

POSITIVE DISTRACTION IS AN ADAPTIVE STRATEGY FOR COPING WITH CHRONIC STRESSORS

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Descriptors: coping, positive emotions, chronic stress

Chronic stress persistently and pervasively takes a psychological and physical toll on those experiencing it. The extant research on coping with chronic stress has almost exclusively focused on cognitively and emotionally effortful engagement strategies – those strategies that cope with the stressor itself. Disengagement strategies – those strategies designed to cope by disengaging with the stressor – have been consistently derogated as maladaptive. In a series of studies, we show that positive distraction, the strategy by which people cope with a chronic stressor by distracting themselves from it and engaging in positive emotion inducing activities or thoughts, may be an exceptional adaptive disengagement strategy. Long thought to reflect avoidance, we show in caregivers of children with cancer and people from the general community that although positive distraction is positively correlated with avoidance, it predicts better mental well-being and less depression while avoidance predicts poorer well-being and increased depression. In an experiment designed to test a possible mechanism through which positive distraction may predict well-being, we show that engaging in positive distraction in between repeated stressors helps participants feel less fatigued when re-engaging with a stressor. These findings suggests that when people are under chronic stress, positive distraction may work by replenishing the motivational resources they need to continue to cope, which in turns leads to better mental well-being.

POSTER B-59

MINDFUL EMOTION REGULATION IN DAILY LIFE

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Descriptors: mindfulness, emotion regulation, experience sampling

Mindfulness is commonly defined as a mode of being attentive to, and aware of, momentary experiences while taking a nonjudgmental and accepting stance. Usually assessed with trait measures, various mindfulness facets have been differentially related to well-being outcomes. However, since between-person differences do not always hold at the within-person level, we aimed to assess different mindfulness facets repeatedly at the within-person level to investigate the processes by which mindfulness may shape affective well-being. As a multidimensional state mindfulness measure was lacking, we developed such a measure capturing different mindfulness facets. We collected data from 70 university students (20–30 years of age) using an experience-sampling technology. We corroborated three mindfulness facets at the between- and within-person level utilizing multi-level confirmatory factor analysis. We also showed that mindfulness facets relate differently to positive (PA) and negative affect (NA) in general, to affective reactivity to stressors, as well as to rumination. Specifically, participants experienced more PA when they were attentive to the present moment and less NA when they accepted momentary experiences without judgement. Furthermore, nonjudgmental acceptance buffered the impact of daily hassles and rumination on affective well-being. Taken together, our approach has provided us with new insights into the within-person associations on how different mindfulness facets relate to affective experiences, which may guide future mindfulness interventions in promoting well-being.

POSTER B-61

AWESOME NATURE HEALS: AWE DURING NATURE EXPERIENCES PREDICTS IMPROVED WELL-BEING

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Descriptors: awe, well-being, nature experience

A large body of evidence suggests that nature experiences promote well-being, however, the mechanisms of this effect are still poorly understood. The current work addresses this limitation by examining how awe experienced during nature experiences uniquely predicts well-being. We pursued this aim in two studies that captured extraordinary (Study 1) and daily (Study 2) experiences of nature. In Study 1, we studied 124 people from at-risk populations, including veterans and youth from underserved communities, who went white-water rafting. At the end of each day of rafting, participants reported how much of each of six positive emotions they experienced, including awe. We found that well-being measured one week after the trip was significantly higher than baseline well-being, F = 43.90, p < .001. Moreover, when controlling for all positive emotions reported during the rafting trip, awe uniquely predicted improvements in well-being, beta = .26, p = .013. In Study 2, we used daily diary methodology to examine the relationship between nature, awe, and well-being in a sample of 118 undergraduates over a two week period during the academic year. We found that people reported higher well-being on days they experienced nature, b = .61, p < .001, and that this effect was fully mediated by the awe that participants reported that day, 95% CI [.51, .81]. This work demonstrates that an emotion science approach can address limitations in the extant nature experience literature, suggesting that awe may be a key mechanism of the effect of outdoors experiences on well-being.

POSTER B-62

COGNITIVE CORRELATES OF MENTAL HEALTH IN ADOLESCENCE: A NETWORK ANALYSIS APPROACH

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Descriptors: cognitive bias, network analysis, adolescence

Selective emotional information processing biases for negative and positive material are important for mental health. While the combined cognitive bias hypothesis (CCBH) suggests that distinct patterns of connectivity among attention, interpretation, and memory biases, contribute to psychopathology, little is known about the interrelationships amongst cognitive biases in relation to mental health. In the current study, we used network analysis to estimate the interrelationships among cognitive biases in adolescents with high (n = 103) and low (n = 104) levels of self-reported mental health. We found greater connectivity amongst interpretation and memory biases in the low relative to the high mental health group suggesting that reducing connections between interpretation and memory biases may promote mental health in adolescents. We discuss the clinical implications of these results on cognitive bias modification interventions and give four recommendations for future research in clinical psychological science, in particular the use of cognitive bias modification procedures. This approach to visualizing connections amongst cognitive biases offers an informative way to visualize and investigate the combined cognitive bias hypothesis in adolescent mental wellbeing.

POSTER B-63

UP-REGULATION OF LOVE AND POSITIVE EMOTIONS: AN EVENT-RELATED POTENTIALS STUDY

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Descriptors: emotion regulation, romantic love, event-related potentials

Many marriages end in divorces. How can one increase love for the spouse and marital satisfaction? We tested whether love up-regulation and positive emotion up-regulation affect love for the spouse, marital satisfaction, and motivated attention for the spouse. We expected that both thinking positively about the spouse and up-regulating positive emotions will increase love, marital satisfaction, and motivated attention as measured by the late-positive potential (LPP). Married participants (N=9, data collection ongoing) viewed spouse, pleasant, and neutral pictures. In up-regulation conditions, prompts encouraged participants to think about positive aspects of their spouse and to interpret upcoming pleasant pictures more positively. Participants completed infatuation, attachment, and marital satisfaction ratings and event-related potentials (ERPs) were recorded. Participants tended to feel more infatuated (p=.05), felt more attached (p=.01), and were more satisfied with their marriage (p=.03) after love up-regulation and positive emotion up-regulation than passive viewing. Passive viewing of spouse pictures elicited a greater LPP amplitude than passive viewing of pleasant and neutral pictures (both ps<.01), but there were no significant regulation effects on the LPP amplitude. So, love and positive emotion up-regulation increased love for the spouse and marital satisfaction, but not motivated attention for the spouse. This project suggests married individuals can increase love feelings and marital satisfaction independent of their spouse.

POSTER B-64

THE JOINT MODERATING ROLE OF EMOTIONAL STABILITY AND CONSCIENTIOUSNESS ON THE RELATIONSHIP BETWEEN PERCEIVED ORGANIZATIONAL SUPPORT AND WORK OUTCOMES

Greg J. Sears
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Descriptors: perceived organizational support, emotional stability, conscientiousness

This study explores whether two personality traits — emotional stability and conscientiousness — jointly moderate the positive effects of perceived organizational support (POS) on worker affective commitment and performance. Drawing on organizational support theory and principles of self-regulation, we propose that workers high on both traits will be more likely to view POS in a favorable light and act on this support. In contrast, employees lower on one or both of these traits may lack the self-regulation capabilities and task focus needed to fully capitalize on POS. For example, employees lower on emotional stability may invest more of their time, energy, and attention toward coping with negative emotions (e.g., worry, fear of failure) rather than toward completing their work tasks and leveraging POS to improve their performance. Data were collected from 131 employees in a multinational transportation security firm. Workers completed a questionnaire measuring their POS, emotional stability, conscientiousness, and affective organizational commitment. Supervisors provided ratings of each worker's job performance. Multilevel analyses yielded support for our hypotheses, indicating that POS was most strongly associated with both affective commitment (gamma = .56, $p < .001$) and performance (gamma = .32, $p < .05$) when workers were high on both traits. These findings signal that both emotional stability and conscientiousness may play a pivotal role in influencing workers' perceptions of, and responses to, POS.

POSTER B-65

CONVERGENCE OF ACTIVE AND PASSIVE ASSESSMENTS OF AFFECTIVE INSTABILITY IN PREDICTING THE PROSPECTIVE COURSE OF BIPOLAR DISORDER: THE BIAFFECT STUDY

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Descriptors: affective instability, ecological momentary assessment, bipolar disorder

Recent technological innovations have opened new frontiers in the active and passive assessment of disease processes in psychiatric disorders. Ecological momentary assessment and keyboard typing kinematics, assessed via smartphone, have important potential for the identification of periods of risk and for translation to real-time interventions. Variability in actively reported indices of negative affect (total N = 294 observations), and passively recorded metrics of typing kinematics (total N = 24,678 observations), were assessed across two weeks among 18 patients with bipolar disorder, using the root mean square successive difference of daily ratings and typing speed. Patients then completed weekly interviews assessing mood symptom severity over 5 to 8 weeks of follow-up. Multilevel modeling suggested that greater day-to-day instability (large, frequent fluctuations) in negative affect, as well as instability in typing speed, contributed uniquely in predicting a poorer prospective course of depression and mania, even after covarying baseline mood symptoms and each person's average levels of affect and typing speed. Furthermore, mood instability mediated the relationship between instability of typing speed and prospective depression. Sensitivity analyses suggested that evaluating instability indices across as little as seven days provided similar predictive utility. This work demonstrates the utility of real-time digital phenotyping in detecting individual differences in mood risk transitions and disease course in psychiatric disorders.

POSTER B-66

I SUPPRESS AND I AM FINE — PERSONALITY CHARACTERISTICS AND THE EFFECTIVENESS OF EMOTION REGULATION STARTEGIES

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Descriptors: emotion regulation strategies, action orientation, personality

In two experiments we checked what was the relation between chosen personality characteristics and the consequences of instructed reappraisal or suppression in a situation eliciting negative emotions. 60 students participated in Study 1 and 133 - in Study 2. They filled in ACS-90 scale measuring action orientation in Study 1 or IPIP scale measuring Big Five personality traits in Study 2. We used movie clips for negative emotion induction and measured emotional state before and after the clip. Emotion regulation strategies of either reappraisal or suppression (vs. no strategy) were activated by written instructions. The results of Study 1 showed that action orientation was a positive predictor of emotional state (beta=0.5; SE=0.16; p-value<0.01). Furthermore, activated strategy influenced emotional state of participants with high action orientation and not those with low action orientation: emotional state was more positive in suppression condition then in reappraisal and control conditions. In Study two we found an interaction between conscientiousness and activated strategy in predicting emotional state: suppression was effective for individuals high in conscientiousness (beta=-0.38; SE=0.19; p-value<0.05) but not for those low in conscientiousness. The results shed new light on the role of action orientation in effective coping with negative emotional state suggesting that for people with certain personality traits suppression can be effective, while so far it was rather described as maladaptive and ineffective emotion regulation strategy.

POSTER B-67

DO AGE AND MOOD INTERACT ON EMOTIONAL BIAS IN EPISODIC MEMORY?

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Descriptors: emotional memory, mood, aging

Some studies showed that elderly show positive bias in emotional memory, but other studies showed that they recall positive and negative memories, equally. The interaction of age and mood on emotional bias is unclear because some studies treated mood as a covariate variable examining correlation between age and emotional memory. This study examined how age and mood interact on emotional memory. The participants were 73 older adults (69.16 ± 4.74 years old) and 73 younger adults (22.26 ± 4.23 years old). Data were collected from Ueno et al. (2014, 2016). The material was 90 non-emotional words and 90 word-paired emotional pictures. These stimuli were divided equally by the standardized emotional valence of pictures into positive, negative, and neutral conditions. The participants were randomly presented with 45 stimuli from each condition every 6 seconds to encode words. After the encoding phase, the participants completed free-recall task. Positive and Negative Affect Schedule was measured before encoding and recalling phase. Hieralical multiple regression analysis was conducted on positive bias index using the amount of recalled words as a dependent variable. Positive and negative mood before encoding and age were retained in emotional bias index model (R = .51, adj R2 = .25, $p < .001$). Age was retained in total recalled words model (R = .60, adj R2 = .35, $p < .001$). The results showed that age and positive mood reinforce positive bias, and negative mood reinforce negative bias. This study suggested that age and mood did not interact on emotional memory bias.

POSTER B-68

EVALUATION OF FRAGRANCES USING FACIAL EXPRESSION ANALYSIS

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Descriptors: facial expression, hedonic value, fragrance

Facial expressions spontaneously indicate our emotions and evaluations of things, when we communicate our evaluations to others. We investigated whether a newly developed method for automatic analysis of facial expressions could detect individuals' hedonic values for fragrances. Sixty-four females (ages 22–59; 32 Japanese and 32 Chinese) participated in this study. Participants were paired, and communicated during the study via real-time computer video software. To gather facial expression data for analysis, they were instructed to smell shampoo fragrances and discuss their impressions of the scents while being recorded. Four types of fragrances were used as stimuli: fruity, fruity-floral, shampoo-base scent, and an unscented control. After the test, they watched their own videos and selected the point when they thought their evaluation for each stimulus was most strongly indicated in their facial expression. We calculated the degree of "happy" evident in these selected expressions using the FaceReader(TM) system. Our results show that there were statistically significant differences in participants' expressions when experiencing and discussing the various fragrances (F(3,189)=12.71, p<.01). Both fruity and fruity-floral stimuli evoked stronger happy expressions than either the unscented or shampoo-base stimuli. These results suggest that hedonic values can be evaluated through automatic analyses of facial expressions during communication.

POSTER B-69

PREDICTING THE USE OF EMOTION REGULATION STRATEGIES IN DAILY LIFE: THE ROLES OF CURRENT AFFECT AND REGULATORY GOALS

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Descriptors: emotion regulation, daily life, strategy selection

Most research on emotion regulation (ER) has focused on the affective consequences of instructed regulation in the lab. Far less is known about how and when people spontaneously use ER strategies in daily life. This study examined how the use of ER strategies in daily life is predicted by people's current affect and ER goals. A non-clinical community sample (N = 179) completed 9-10 ecological momentary assessment surveys daily for 21 consecutive days, assessing their momentary experiences of positive (PA) and negative affect (NA); goals to decrease, maintain or increase PA and NA; and use of nine widely-studied ER strategies. Data were analysed using bayesian multilevel vector autoregressive models. In line with pro-hedonic motivational accounts, increases in NA predicted greater use of all but two ER strategies, whereas increases in PA predicted lesser use of some strategies (e.g., rumination, expressive suppression) and greater use of others (e.g., acceptance, social sharing), suggesting that people expend more effort to regulate unpleasant feelings. However, independent of current affect, increases in the goal to up-regulate PA predicted increased use of several ER strategies (e.g., distraction, reappraisal), whereas the goal to down-regulate NA was only uniquely associated with greater use of rumination. Given that rumination, in turn, predicted increases in NA, this suggests that holding strong goals to decrease NA may have paradoxical effects. This study is among the first to study predictors of naturalistic variability in the use of ER strategies in daily life.

POSTER B-70

IMMEDIATE OR LONG-TERM RELIEF OF UNPLEASANT FEELINGS: THE EFFECTS OF TEMPORAL FOCUS ON THE PERCEIVED EFFECTIVENESS OF EMOTION REGULATION STRATEGIES

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Descriptors: emotion regulation, preferences

Emotion regulation strategies vary in the extent to which they provide immediate or long-term relief of unpleasant feelings. In recent research, people given a short-term goal favored distraction over reappraisal and people given a long-term goal favored reappraisal over distraction. Building on prior research, we examined the effect of manipulation of temporal focus on the perceived effectiveness of a broad array of emotion regulation strategies used to down-regulate negative emotions. Eighty participants focused on either the immediate or long-term relief of unpleasant feelings when rating the effectiveness of four adaptive and four maladaptive strategies in response to each of nine emotionally evocative scenarios. Specifically, participants rated how much better or worse they thought each strategy would make them feel, either immediately or in the long-term. Participants perceived adaptive strategies to be more effective for long-term than immediate relief of unpleasant feelings, t(78) = 2.04, p = .022, d = .46, and maladaptive strategies to be more effective for immediate than long-term relief of unpleasant feelings, t(78) = 2.56, p = .006, d = .57. The effects were strongest for reappraisal and situation modification (adaptive strategies) and for substance use and acting out (maladaptive strategies). Thus, people have some awareness of the differential short- and long-term consequences of a range of adaptive and maladaptive strategies for the down-regulation of negative feelings and may take these into account when choosing how to regulate their emotions.

POSTER B-71

INDIVIDUAL DIFFERENCES IN THREAT SENSITIVITY: EVIDENCE OF SEPARABLE CONSTRUCTS RELATING TO SPEED AND MAGNITUDE OF RESPONSE

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Descriptors: threat, individual differences, affective reactivity

We examined within-person consistency in physiological, perceptual, behavioral, and subjective responding across a variety of threat-related tasks. One hundred and three participants completed an acoustic startle paradigm where we used facial electromyography techniques to measure the amplitude and latency of their automatic startle blink reflex to a series of uncontrollable aversive stimuli. Participants also completed a continuous flash suppression (CFS) breakthrough task which assessed how quickly a variety of stereotyped facial expressions (e.g., fear) reached conscious visual awareness, as well as a computer-based behavioral shooting task where they were asked to 'shoot' armed targets and 'not shoot' unarmed targets as they appeared. Finally, participants also retrospectively self-reported on their exposure to a variety of community-based disasters, including the Boston Marathon bombings, as well as how affected they felt by each incident. Results revealed that individuals with quicker startle blink responses perceived fearful faces more quickly in the CFS task (r(87)=.33, p=.002), while individuals with larger amplitude startle blink responses recalled being more affected by the Boston Marathon bombings (r(90)=.20, p=.004) and other community disasters (r(68)=.26, p=.04). Shooting behavior was generally unrelated to perceptual and physiological measures. Implications for studying individual differences in threat sensitivity are discussed, including the possibility that separable constructs exist relating to the speed and magnitude of response to potential threats.

POSTER B-72

INFLUENCES OF DAILY MATERNAL TOUCH ON STRESS AND PHYSIOLOGICAL RESPONSES IN MOTHER AND INFANT

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Descriptors: mother-infant's interaction, maternal touch, POMS

Studies have reported that maternal touch positively affects physiological responses in mothers and infants. We evaluated effects of maternal touch with music on mood and subjective stress of mothers when nursing infants. For this, we developed a new learning-based test where care through maternal touch was accompanied by music for 1 week; then, the music was presented as a cue to evoke psychological and physiological responses in the test session. Twenty mother-infant dyads (infants aged: 4-8 months) participated. A 17-min pre-test session including two 5-min rest periods and about 7-min music presentation was conducted in the lab. Ten mothers were instructed to provide maternal touch to infants with the music at home when changing diapers and maintain records of their moods. The other ten mothers in the control group did not provide maternal touch accompanied by music. After 1 week, we conducted the same lab test (post-test). Saliva was sampled twice before and after the 5-min rest period in each lab test. Mothers' affective states were assessed using Profile of Mood States 2 (POMS2) short-form and daily logs. The daily logs showed that maternal touch with music significantly improved their moods (p<0.05). POMS2 showed that the 1-week maternal touch accompanied by music significantly reduced the maternal fatigue-inertia mood (p<0.05). These results suggest that maternal touch accompanied by music can enhance the mother-infant bond by improving their moods.

POSTER B-73

FOOD PICTURES DISTRACT AND IMPACT PERFORMANCE ON AN ATTENTION TASK

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Swarthmore College

Descriptors: attention, distraction, inhibition

A healthy lifestyle involves attention to diet, exercise, and other habits, as well as the ability to control impulsive behavior that may undermine healthy choices. Food in particular may be an emotional stimulus that both attracts attention and distracts from performing a difficult task. In the current study, we examined the effects of food stimuli on performance on a modified Flanker task that incorporated behavioral inhibition via introduction of go/nogo cues. Participants responded to a series of Flanker stimuli superimposed on pictures of food or non-food items. Participants exhibited a typical Flanker effect, as they were faster to respond to congruent versus incongruent Flanker stimuli. In addition, they were faster to respond when Flanker stimuli were superimposed on food (versus non-food) pictures, indicating that food pictures focused their attention. Accuracy was highest for congruent Flanker trials, regardless of picture content. Participants were less accurate on incongruent Flanker trials, particularly when they were superimposed on food (versus non-food) pictures, indicating that food pictures also distracted from their ability to respond to difficult Flanker stimuli. On nogo trials, participants were better able to inhibit their responses on congruent trials with food pictures (versus non-food) pictures; but on incongruent trials with non-food (versus food) pictures. In sum, our results suggest that food pictures may focus attention, distract from a difficult task, and interfere with the ability to inhibit responses.

POSTER B-74

RELATIONSHIP BETWEEN MOOD AND EXECUTIVE FUNCTIONS IN MULTIPLE SCLEROSIS

Ernest Tyburski[1], Andrzej Sokolowski[2], Andrzej Potemkowski[1], Agnieszka Samochowiec[1]
[1]University of Szczecin, [2]University of Warsaw

Descriptors: depression, executive functions, multiple sclerosis

Neuropathy, neurohistology, neurophysiology and neuroimmunology are often associated with fatigue, pain, dysfunction and cognitive dysfunction, and physical disability in multiple sclerosis (MS), which may lead to depressive mood and depression. The relationship between the depressed mood and executive functions has not been fully understood yet. The aim of this study was to determine the relationship between depressive mood and executive functions. 30 patients with relapsing-remitting multiple sclerosis and 30 healthy controls took part in the study. Groups did not differ in terms of age and years of education. Beck Depression Inventory was used to measure depression. Verbal Fluency Test (semantic and phonetic number of switches index), Trail Making Test (relative RT index), Stroop Color and Word Test (relative RT index) were used to assess the executive functions. There were significant correlations between depression level and verbal (r = -.39; p < .05) and nonverbal mental flexibility (r = .41; p < .05) as well ability to suppression of dominant verbal reaction (r = .42; p < .05). The present study indicated that cognitive aspects of the depressive mood may be important for understanding the course of complex cognitive processes (e.g., mental flexibility and cognitive suppression).

POSTER B-75

BEST OF TIMES AND WORST OF TIMES: POLITICAL IDEOLOGY, DISCUSSION SEEKING BEHAVIORS, AND EMOTION REGULATION STRATEGY USE

Sara M. Levens[1], Alexis Mitchell[1], Kendall Maurer[1], Lonna Atkeson[2], Cherie Maestas[1]
[1]University of North Carolina at Charlotte, [2]University of New Mexico

Descriptors: emotion regulation, political ideology, discussion seeking behaviors

Communication is key in times of social division, yet it is unclear how 'cross-aisle' discussion behavior is associated with emotion regulation strategies that can be used to manage emotions in a divisive climate. Using data from a national representative survey (n=4000) we sought to examine the association between discussion behaviors (discussions with those similar or dissimilar to oneself) and use of various emotion regulation (ER) strategies. We conducted a series of hierarchical linear models to respectively predict the use of positive reappraisal, long term meaning (LTM) based reappraisal and acceptance ER strategy use. In step-one of each model we controlled for gender, race, education, locus of control, self-efficacy, and worry. In step-two we included political ideology, and in steps 3 and 4 we included a measure of discussion seeking behavior with those similar, or dissimilar to oneself respectively. Findings indicate that worry and political ideology predict use of each ER strategy, ps<.001. With respect to the role of discussion behaviors, seeking discussions with those with similar views was associated with greater LTM reappraisal (p<.01), and less acceptance (p<.01), but had no association with positive reappraisal use. In contrast, seeking discussions with those with dissimilar views to oneself was associated with more positive reappraisal use, more LTM reappraisal, and more acceptance, all ps<.001. Findings suggest that discussions with those with similar and dissimilar views supports different emotion management strategies in the current political climate.

POSTER B-76

PSYCHOPHYSIOLOGY OF SHIFTED CONVICTIONS: POLITICS, THREAT, EMOTION, AND BACKFIRE

Steve G. Greening[1], Joshua Owens-French[1], Kathleen Searles[1], Sarah I. Gimbel[2], Sam Harris[n/a], Jonas T. Kaplan[2]
[1]Louisiana State University, [2]University of Southern California

Descriptors: belief, psychophysiology

The Backfire Effect is the phenomenon in which strongly held beliefs are sometimes reinforced when confronted with conflicting information. We were interested in examining the role played by emotion in this effect when people are faced with challenges to political versus non-political beliefs. We examined this phenomenon through self-report and through physiological measures (EMG, EDA, and pulse) to assess physiological arousal and affect during each task. Participants were recruited via a prescreening form with a series of political and non-political statements, which they rated on a scale from Strongly Disagree to Strongly Agree. Statements rated highly were then paired with challenge statements designed to challenge participants' firmly held belief in the initial statement. Following the challenges, participants were again asked to rate the degree to which they either agreed or disagreed with the initial statement. Information was collected on 20 individuals, excluding 8 due to technical failure. We found through self-report that political belief decreased after challenges ($p<.05$), as did non-political belief ($p<.001$). We also found that non-political belief was significantly more susceptible to challenges than political belief ($p<.001$). One possible mechanism for this effect is that challenges to closely-held attitudes are processed as threatening, thereby increasing negative affect and leading to cognitive strategies aimed at reducing that negative affect. Analysis of physiological data will be presented along with the behavioral findings to evaluate this hypothesis.

POSTER B-77

LEARNING ABOUT HEALTHY WAYS TO RELATE TO POSITIVITY MODERATES THE EFFECT OF LOVING-KINDNESS MEDITATION ON EMOTIONS

Patty Van Cappellen[1], Lahnna I. Catalino[2], Rebecca T. Suslik[3], Ann Firestine[4], Barbara L. Fredrickson[4]
[1]Duke University, [2]Scripps College, [3]Pomona College, [4]University of North Carolina at Chapel Hill

Descriptors: positive emotions, emotion regulation

Research reveals the benefits of positive emotions for mental and physical health; however, the deliberate pursuit of happiness is tricky. People who care too much about their happiness experience fewer positive emotions, whereas people who structure their days to include pleasant events experience more positive emotions. We tested whether explicitly teaching people about the dangers of caring too much about happiness, as well as the benefits of setting aside time for pleasant events, would influence their emotional response to a novel, pleasant health behavior. To that end, we assigned a community sample of adults (n = 224) either to learn this information via a passage or read about the neuroscience of positive emotions. Next, participants were assigned either to engage in a pleasant health behavior (loving-kindness meditation) or a neutral health behavior (mindfulness meditation). As expected, participants who practiced loving-kindness meditation experienced more love and compassion, in comparison to those practiced mindfulness meditation. However, this effect depended upon whether or not participants were taught about healthy ways to relate to happiness; in particular, there was a significant interaction between meditation type and passage type, $F (2, 218) = 4.45$, $p < .05$. Participants who practiced loving-kindness meditation and were taught about healthy ways to relate to happiness experienced the most love and compassion. Thus, we discovered evidence on how to amplify the dose of positivity participants extract from a health behavior.

POSTER B-78

FEELING GOOD AND BAD ABOUT NOTHING AT ALL: MIXED EMOTIONAL RESPONSES TO $0 GAMBLE OUTCOMES

Catherine J. Norris[1], Letitia Ho[1], Jeff T. Larsen[2]
[1]Swarthmore College, [2]University of Tennessee

Descriptors: ambivalence, mixed emotions, neuroticism

Ambivalence, feeling good and bad at the same time, has previously been studied in response to emotionally complex stimuli including life events (e.g., college graduation), films (Life is Beautiful), and mixed gamble outcomes (disappointing wins). We sought to examine whether the lack of a positive or negative outcome might elicit mixed feelings. Participants played a series of gambles, each of which contained three possible outcomes: one positive (e.g., winning $25), one negative (losing $25), and one status quo ($0). As expected, wins elicited strong positivity and little negativity; losses elicited strong negativity and little positivity; and emotional responses increased as the magnitude of outcomes increased from $1 to $25. $0 outcomes elicited low levels of positivity and negativity that increased as the magnitude of comparison outcomes increased. Whereas ambivalence to wins and losses decreased as a function of outcome magnitude, ambivalence to $0 outcomes increased, indicating more mixed feelings as participants failed to win or lose greater amounts. Individual differences moderated ambivalence, such that individuals lower in neuroticism reported increasing ambivalence in response to $0 outcomes as the magnitude of comparison outcomes increased, but individuals higher in neuroticism did not. Results suggest that even in the absence of a positive or negative outcome, individuals may experience ambivalence; and those lower in neuroticism may be more prone to engage in counterfactual reasoning in response to $0 outcomes in the context of high magnitude comparisons.

POSTER SESSION C
Saturday, April 28, 2018
4:00 p.m.-5:15 p.m.

POSTER C-1

INTERACTION OF NEURAL NETWORKS UNDERLYING HEIGHTENED THREAT VIGILANCE USING A NEURODEGENERATIVE DISEASE LESION MODEL

Suzanne M. Shdo, Gianina Toller, Kamalini Ranasinghe, Winson Yang, Samir Datta, Virginia Sturm, Bruce Miller, Katherine P. Rankin
University of California, San Francisco

Descriptors: threat vigilance, resting state functional connectivity, neurodegenerative disease

Threat vigilance is a common feature of anxiety, though its underlying neural networks are not yet well-understood. Because specific intrinsically connected functional networks (ICNs) are vulnerable in patients with neurodegenerative diseases (NDG) and many patients have marked neuropsychiatric changes, examining relationships between behavior and resting-state functional network connectivity (rsFC) in early-stage NDG can reveal critical information about the neural circuitry of affective systems. We measured threat vigilance using informant reports of participant behavior on the Behavioral Inhibition Scale (BIS) in 564 participants (111 healthy older controls; 453 patients with one of six early NDG syndromes). Mean rsFC was measured in three ICNs: 1) semantic appraisal network (SAN), involved in hedonic evaluation; 2) salience network (SN), involved in threat detection; 3) default mode network (DMN), involved in memory. With regression modeling, we found a significant interaction between mean SAN and SN connectivity in predicting BIS score ($F=4.68$, $p<0.05$), controlling for age and gender. Participants with low SAN and high SN connectivity had higher BIS scores, while participants with high SAN and high SN connectivity showed the opposite relationship. This interaction suggests that in the context of high attention to salient stimuli, low connectivity in a network involved in semantic evaluation leads to increased levels of threat vigilance, while more nuanced semantic evaluations permit superior anxiety management.

POSTER C-2

EFFECT OF CAREGIVING ADVERSITY ON NULLIPAROUS WOMENS' AVOIDANCE OF INFANT STIMULI

Emilia N. Ninova, Jennifer A. Silvers
University of California, Los Angeles

Descriptors: caregiving, adversity

Experiencing caregiving adversity has been linked to providing suboptimal caregiving to one's own children (McCullough et al. 2014). To date, this link has only been explored in individuals who are already parents, limiting early intervention opportunities. This study examined whether adverse caregiving experiences impact nulliparous women's responses to infant stimuli. Fifty-seven nulliparous women (Mean age = 19.84) were tested on a novel approach/avoidance task that incorporated clips of infants crying and laughing. Regardless of stimuli valence (crying or laughing), individuals who had experienced early adversity were slower to approach infant stimuli than individuals who had not, demonstrating greater overall avoidance tendency ($p<.036$). This preliminary finding suggests that individuals who experienced caregiving adversity may express different implicit tendencies toward infants. This simple paradigm could provide an opportunity to identify and intervene in individuals who may experience difficulty adjusting to parenthood.

POSTER C-3

USE YOUR WORDS: A LONGITUDINAL PILOT STUDY ON THE EFFECTS OF A NOVEL ONLINE EMOTION-WORD LEARNING TASK ON EMOTION DIFFERENTIATION AND SYMPTOMS OF PSYCHOPATHOLOGY

Lindsey M. Matt, Karin G. Coifman
Kent State University

Descriptors: emotion differentiation, intervention, EMA

Emotion differentiation can be defined as the degree of complexity people use when describing their emotional experiences with language. The use of this nuanced language confers a variety of psychological, physiological, and social benefits, particularly during times of distress. There are little data, however, exploring the stability of differentiation and how it might be shaped by emotion learning. The current study examined whether randomization to an online emotion-word learning task (vs. active control) would influence negative emotion differentiation (NED) and symptoms of psychopathology. One hundred and fifty participants completed EMA in which they rated their emotions using words for seven days pre- and post-task (used to derive NED). We hypothesized that individuals who completed the emotion word-learning task (vs. controls) would show improved post-task NED and decreases in symptoms.

Bootstrap mediation analyses were conducted using Hayes' PROCESS macro. Post-task NED was found to significantly mediate the relationship between condition and post-task symptoms, such that increases in NED in those in the emotion condition were related to fewer symptoms at one week (CI=-.1577, -.0017) and two months post-task (CI=-.2532, -.0082). These results suggest that negative emotion differentiation is malleable in adults in response to brief exposure to learning, and that doing so may result in meaningful changes in symptoms. Given the benefits associated with differentiation, future work should seek to replicate and extend the current findings in clinical samples.

POSTER C-4

DECOMPOSING THE FACTORS INFLUENCING OUR EXPERIENCES AND ALLOCATION OF EFFORT

Anna Xu, Amitai Shenhav
Brown University

Descriptors: effort, feedback, fatigue

How much effort we put into a task can both influence and be influenced by our affective experience of that task (e.g., our perceived exertion and fatigue). Here we explicitly measure these relationships and examine the degree to which they depend on the availability of positive versus negative feedback. Participants (n=50) performed a task requiring them to squeeze a hand-grip up to a target level for a minimum duration, with task difficulty varying across trials. Participants were only given feedback on a subset of trials. This feedback was non-veridical, putatively indicating failures (negative blocks) or successes (positive blocks). Participants also sporadically rated their perceived levels of effort exertion, fatigue, and how confident they were that they met the target for that trial. We found that confidence increased over time in positive feedback blocks and decreased over time in negative feedback blocks, independent of actual accuracy. Conversely, experiences of fatigue and exertion demonstrated similar effects over time – participants felt greater fatigue and greater perceptions of effort exertion despite exerting less effort over time. Finally, we found that both fatigue and actual effort exertion increased with increasing task difficulty, but participants invested more effort when responding to negative relative to positive feedback. Overall, these results provide preliminary support for distinct influences of task characteristics (e.g., feedback, time, task difficulty) on subjective experiences of effort and task performance, and on actual effort allocation.

POSTER C-5

FEAR EXTINCTION THROUGH "THE MIND'S EYE"

Xinrui Jiang, Laurent Gregoire, Steven Greening
Louisiana State University

Descriptors: fear, mental imagery

Mental imagery plays a significant role in many psychopathologies (e.g., anxiety, depression), and it is often involved in the clinical treatments for these disturbances, mainly cognitive behavioral therapy (CBT) techniques based on fear conditioning principles (Holmes & Mathews, 2010). However, the basic mechanisms of mental imagery and their role in fear conditioning and fear extinction remain largely unknown. The current study aims to assess whether fear extinction of visual stimuli can take place through imaginal exposure to the conditioned stimulus. Sixteen participants have completed our three-phase experiment involving fear acquisition, and early and late fear extinction. Based on self-report, participants had greater fear for shock when viewing both fear-conditioned stimuli (CS+1 and CS+2) compared to viewing CS- following acquisition (p < .05). During early extinction, participants imagined the CS+1 and viewed the CS+2. Afterwards, participants exhibited higher fear levels on CS+1 versus CS- (p < .05) trials, while no such difference was found between the CS+2 and the CS-. After viewing both CS+1 and CS+2 during late extinction no differences were found in self-reported fear (p > .05). These results suggest that imaginal exposure to a CS+ produces fear extinction, but at a lower rate than viewing. Both self-reported fear levels and skin conductance responses are being collected and will be presented in the poster.

POSTER C-6

META-ANALYSIS OF AGING AND INSTRUCTED EMOTION REGULATION

Brooke Brady[1], Ian I. Kneebone[2], Nida Denson[1], Phoebe E. Bailey[1]
[1]Western Sydney University, [2]University of Technology Sydney

Descriptors: emotion regulation, aging, meta-analysis

The process model of emotion regulation is based on stages in the emotion generative process at which regulation may occur. This meta-analysis examines age-related differences in the subjective, behavioral, and physiological outcomes of instructed emotion regulation strategies that may be initiated after an emotional event has occurred; attentional deployment, cognitive change, and response modulation. Within-process strategy type, stimulus type, and valence were also tested as potential moderators of the effect of age on emotion regulation. A systematic search of the literature identified 156 relevant comparisons. Few age-related differences were found. In our analysis of the subjective outcome of response modulation within-process strategies, young adults used expressive enhancement successfully (g = 0.48), but not expressive suppression (g = 0.04). There was no difference in the effectiveness of these strategies among older adults. Young adults effectively used response modulation to regulate subjective emotion in response to pictures (g = .41) but not films (g = .01). Older adults were equally able to use response modulation strategies in response to films and pictures. Although within-process strategy and stimulus type had some effect on age differences in emotion regulation, there was predominantly a lack of evidence for age-related differences in the successful implementation of instructed regulation of emotion following the occurrence of an emotional event.

POSTER C-8

CORTICAL SPECIALIZATION SUPPORTS SUCCESSFUL EMOTION REGULATION IN YOUTH

Joao F. Guassi Moreira[1], Katie A. McLaughlin[2], Jennifer A. Silvers[1]
[1]University of California, Los Angeles, [2]University of Washington, Seattle

Descriptors: emotion regulation, development, affective neuroscience

The development of successful emotion regulation (ER) is a key developmental hurdle. Neuroimaging studies show that changes in frontoparietal recruitment contribute to age-related changes in ER abilities. Prior work has primarily operationalized age-related changes in brain function by calculating peak activation estimates in regions of interest (ROIs). While useful, it does not reveal whether activation within ROIs becomes specialized during emotion regulation across development. We set out to specifically test whether cortical specialization is related to successful ER in youth. We collected fMRI data on 70 youths (ages 8-17, avg = 12.6) and calculated indices of specialization of activation in a priori defined frontoparietal ROIs. Specialization indices were calculated in two ways: (1) we computed Gini coefficients within each ROI, and (2) we determined commonalities and differences in specialization across ROIs using graph theory approaches. We observed that greater specialization of activity in dorsolateral PFC during ER is linked to better ER success, regardless of age (b = 188.6, p = .08). Graph analyses showed that our network of ROIs evinced lower closeness centrality for specialization during emotion regulation compared to passively viewing emotional stimuli (.17 v .35), suggesting greater specialization across the whole network during ER. Our results imply that the ability to successfully regulate emotions during youth is undergirded by a neural code that is shared across a network of brain regions critical for emotion regulation.

POSTER C-9

DOES PROSPECTIVE VARIABILITY IN THE POSITIVE AND NEGATIVE VALENCE SYSTEMS IMPACT DEPRESSION AND STRESS?

Divya Kumar, Noelle B. Smith, Alicia Meuret
Southern Methodist University

Descriptors: affective variability, depression, stress

Variability in affect is a symptom of mood disorders and relates to poor clinical outcomes. Most studies have evaluated change in absolute levels in mood over time, rather than looking at variability in the positive (PV) and negative valence system (NV) across timepoints, and their relation to symptoms of depression and stress. The current study sought to examine this. Ninety-six undergraduate students completed weekly reports via the Positive and Negative Affective Schedule (PANAS), and the Beck Depression Inventory (BDI) and Perceived Stress Scale (PSS) at six-week follow-up. At baseline, 43% of participants had PANAS-PV scores in a clinical range and 82% had PANAS-NV scores in a clinical range. We calculated mean square successive difference (MSSD) to determine variability in PV and NV across the six weeks. PANAS-PV MSSD was 62.50 (SD=87.56, 1.75 – 412.50) and PANAS-NV MSSD was 44.98 (SD=87.60, 0.50 – 337.00), indicating a range of variability in the sample. Results demonstrate a significant positive association between BDI score and PANAS-NV MSSD (r =.21, p =.04), but not PANAS-PV. There was also a significant relation between MSSD of PANAS-PV and the PSS (r =.21, p =.04) and PANAS-NV and the PSS (r =.38, p =.00). Thus, greater variability in NV is associated with higher depression and stress symptoms, whereas greater variability in PV is related to greater stress symptoms. These findings underscore the importance of examining variability of PV and NV individually, as they differentially relate to symptoms, and could potentially be markers of risk.

POSTER C-10

CONSIDERING THE OVER-PERCEPTION OF PARTNER'S POSITIVE EMOTION IN ROMANTIC RELATIONSHIPS

Liana Gheorma, Sara B. Algoe
University of North Carolina at Chapel Hill

Descriptors: emotion perception, positive emotions, close relationships

Past research has shown that in general, perceiving one's partner more positively in terms of personality is good for the relationship. No study, however, has investigated how over-perceptions of positive emotions affect interpersonal relationships. Over-perceiving positive emotions further adds to emotion theory by providing a new approach to studying the effects emotions in interpersonal interaction as past studies have focused predominantly on either simple perception of emotion or accuracy. We conducted two studies that involved a total of 257 couples (Study 1 N=129 couples, 258 total participants, Study 2= 127 couples, 254 participants) in meaningful social interactions: one participant (the expresser) expressed the positive emotion gratitude to their significant other (the target). After the expression, both couple members rated their own emotions and their perceptions of their significant other's emotions. While controlling for the expresser's self-reported level of positive emotion, targets who perceived the expresser as experiencing more positive emotions than the expresser reported experiencing had higher relationship satisfaction in each study (Study 1 beta = 0.096, p= 0.051, R squared = 0.152 ; Study 2 beta = 0.147, p= 0.023, R squared = 0.057). In conclusion, biased perceptions of positive emotions help us better understand the social functions of positive emotions by providing us with a new theoretical consideration.

POSTER C-11

VALIDATION OF FILM CLIPS IN CZECH SAMPLE: QUALITATIVE AND QUANTITATIVE APPROACH

Ondřej Novák[1], Jaroslav Krpec[2], Katarína Baranyaiová[1], Julie Melicharová[1], Michal Pikola[1]
[1]Charles University, [2]New York University in Prague

Descriptors: emotion elicitation, film clips, cultural comparison

Film clips are widely used stimuli for emotion elicitation. They bring high level of ecological validity, attention capture and standardization ease into the affective research. Yet, most of the recommended film clips are unsuitable for Czech participants because of the language barrier. Relevant papers and databases were searched for audiovisual stimuli commonly used as emotion elicitors. Dubbed versions were found for language dependent films coming predominantly from English and French speaking movies. All films were than validated for use in Czech participants. Firstly, qualitative methods were employed in order to access participants feelings during clip watching. Secondly, all film clips were validated on Czech sample using newly acquired emotion words and the emotion list used for validation purposes in similar studies. Additionally, dimensional and continual ratings were measured for selected film clips. The poster will present data from comparison of Czech and original normative ratings in terms of emotional categories and dimensions. Also, it will demonstrate a new way of measurement of continuous affective response. Such normative data could prove useful for any kind of time related emotion research using film clips as a stimuli. Our study will supply Czech researchers with high quality audiovisual affective material.

POSTER C-13

CONSIDER THE CONSEQUENCES: PARENT EMOTION REGULATION ABILITY, PARENTING SELF-EFFICACY, AND CHILD DIET

Alexis D. Mitchell, Sara J. Sagui-Henson, Laura M. Armstrong, Sara M. Levens
University of North Carolina at Charlotte

Descriptors: parent emotion regulation, childhood obesity, reappraisal

Childhood obesity is a serious public health concern that can be emotionally challenging for parents. A parent's ability to manage negative emotions may be important for maintaining healthy child behaviors and facilitating health-specific parenting self-efficacy. This study examined associations among parental emotion regulation, parenting self-efficacy, and child dietary habits. Parents (n = 156) with a 6-12 year old child recruited from Amazon's MTurk completed a health-specific parenting self-efficacy measure and reported their child's daily servings of fruits and vegetables (F/V) and sweets and desserts (S/D). They also completed a novel parent emotion regulation ability task where they viewed film clips of children struggling with weight-related behaviors and were asked to manage their emotions by either positively reframing the situation to feel less negative (positive reappraisal ability; PRA), or negatively reframing to feel more negative (negative reappraisal ability; NRA). Two mediation models examined the direct relationship between PRA, NRA and child dietary habits, and the mediating role of parenting self-efficacy. PRA had a negative effect on F/V (beta = -.15) and a positive effect on S/D consumption through self-efficacy (beta = .20), while NRA had a positive effect on F/V (beta = .17) and a negative effect on S/D consumption through self-efficacy (beta = -.15). Results suggest that parents' ability to consider the negative consequences of childhood obesity can indirectly help them gain the confidence needed to encourage healthy child eating behaviors.

POSTER C-14

THE REGULATION OF FEAR USING IMAGINED VERSUS VISUALLY PRESENTED DISTRACTERS

Tyler D. Robinson, Steven G. Greening
Louisiana State University

Descriptors: emotion regulation, attention, imagined

As part of an ongoing effort to clarify the mechanisms of attention and reappraisal in emotion regulation, this study examined the effectiveness of internally generated distracters, as opposed to visual distracters, in the downregulation of a conditioned emotional response. Participants (N=28) were conditioned to one of two face images to both face and distracter images. After conditioning, participants alternated between external and internal distraction trials. In external trials, participants were shown faces alone, places alone, and composite face-place images with superimposed distracters on the CS+ or CS- faces and were directed to attend either the face or the place. In internal trials, participants were instead instructed to imagine a place image, while they viewed faces overlaid with scrambled place images. We assessed participant responses using both self-report and skin conductance (GSR). Paired contrast of behavioral data shows successful conditioning (p<.01) present across conditions. Repeated measures ANOVA confirmed that fear conditioning persisted into the regulation phase, revealed a significant reduction in fear to the CS+ in external and internal tasks (p<.01). There was no difference in distracter effectiveness by modality (p=.41). Not only are imagined distracters effective at downregulating affect, they are comparably effective to visual distracters. Higher difficulty in the "imagine place" condition suggests that an internal distracter may be more difficult to apply or may utilize different neurocognitive mechanisms.

POSTER C-15

THE EFFECT OF ATTENTION BIAS MODIFICATION ON EMOTION DYSREGULATION

Anna B. Madden, Steven G. Greening
Louisiana State University

Descriptors: emotion regulation, attention bias, anxiety

There is evidence that negative attention biases contribute to the development and maintenance of anxiety disorders. Such biases lead individuals both to preferentially attend to negative information and to display an inability to disengage their attention from negative emotional stimuli. Recent findings in psychological research suggest that attention bias modification (ABM) training can help overcome attention biases and thus reduce symptoms of anxiety. Emotion dysregulation is also a main component of anxiety disorders, which is thought to be a result of biases of emotional attention selection. Neuroimaging studies have shown that the attention and emotion regulation deficits of anxious individuals display similar neural activation patterns in regions of the frontolimbic areas. Due to the behavioral and neural similarities of these processes, we sought to determine if emotion regulation is underpinned by the mechanisms of emotion-related attention selection. Thus, we tested the prediction that a single session training (i.e. attention bias modification) would acutely improve participants' emotion regulation abilities. Participants were randomly assigned to an experimental condition (n=9) which performed a traditional ABM task prior to emotion regulation trials or a control condition which performed a traditional dot probe task (n=10). Preliminary results of this experiment suggest that a single session ABM improves implicit emotion regulation ('Look' Negative; p <.05) but does not explicit emotion regulation ('Reappraise' Negative; p>.05).

POSTER C-16

WHAT DO WE DO WHEN WE DISTRACT: RECONCEPTUALIZING A COMMON EMOTION REGULATION STRATEGY

Ashish Mehta[1], Gaurav Suri[1], James J. Gross[2]
[1]San Francisco State University, [2]Stanford University

Descriptors: emotion regulation, distraction

In recent years, emotion regulation researchers have made considerable strides in determining the conditions under which people direct attention away from emotional stimuli to reduce negative affect (distraction) and the consequences that result from it. However, distraction inductions often suffer from a lack of face validity. It remains to be seen how and when distraction is used outside of the context of laboratories in everyday life. In a series of two studies, we show that distraction is most often implemented by engaging in externally facilitated behavioral activities, rather than engaging in mere cognitive exercises as it has been previously studied. In Study 1, we used a free-response answer format to collect data (N = 100) on very recent emotion regulation experiences without priming certain strategy types. Distraction was the most common strategy used (N = 22) and the large majority of these were behavioral distractions (N = 16), rather than cognitive distractions (N = 5) (1 distraction unclassifiable), p = .02. In Study 2, we were able to achieve higher power by focusing our questions specifically on distraction. The result replicated to an even greater degree with 68 behavioral distractions and 4 cognitive distractions, p < .001. These findings open up a host of implications for the field, as well as future research questions, such as, what situational factors influence which type of distraction is chosen and how different distraction types differentially attenuate affect.

POSTER C-17

STEREOTYPES AS FACILITATORS: EVIDENCE OF STEREOTYPE ACTIVATION OVERSTEPPING CATEGORY BOUNDARIES

Chirag A. Dalibar
San Francisco State University

Descriptors: stereotypes, memory, cognition

Categorization and subsequent generalizations are innate characteristics of human cognition. From an evolutionary vantage point, heuristics providing unmistakable advantages in dealing with complexities of life is obvious. The automaticity of stereotype activation (SA) is a well-accepted idea with solid empirical support. The hypothesis that the activation of stereotypes of a certain category affects consequent activation of stereotypes of a different category and the prediction that the priming of a stereotype category would facilitate subsequent SA of a different category, was supported by a within subjects, pre-post experiment design with university students (n = 47) using Roediger and McDermott's false memory paradigm (1995). Paired sample t-tests indicated a significant increase in the "remembering" of the critical lures as belonging to the original list after priming compared to the baseline. Current results supporting automaticity of stereotype activation not only direct a spotlight toward future research in SA and stereotypes in general, but highlight automaticity in cognitive processes underpinning all human behavior and perception. As seen in the characterization of stereotypes as "a sluggard's best friend", unison functioning of the intricate human cognition is often misunderstood, resulting in the presumptions of primacy of a top-down processing, which could be seen as an implicit homunculus. Current findings of cross-category activation of stereotypes, the facilitation effect, contributes to the elusive and intriguing functioning of human cognition.

POSTER C-18

STRESS AND AFFECT REGULATION ACROSS SOCIOECONOMIC STRATA

Angela M. Smith, Daniel J. O'Leary, James J. Gross
Stanford University

Descriptors: affect, stress, socioeconomic status

Recent findings show that low SES individuals have a more limited repertoire of healthy affect regulation (AR) strategies and may be less likely than high SES to regulate affect when exposed to certain types of stress. One stressor that is ubiquitous across all SES is related to academic achievement. This study (n=46; 28 women) investigated whether lower (vs. higher) SES individuals were less likely to initiate AR following an achievement-related stress task. Stress was induced with a between-subjects stress manipulation. In the stress condition, participants were asked to solve a series of verbal word problems of increasing difficulty. AR was measured through avoidance of negative affect on an AR task used in prior research. Results indicated participants in the stress condition were less likely to initiate AR than participants in the no stress condition (b = 0.35, SE = 0.13, z = 2.75, p < 0.01) and low SES participants were less likely than high SES to initiate AR regardless of group (b = 0.56, SE = 0.13, z = 4.28, p < 0.001). Importantly, we observed an interaction (b = -0.36, SE = 0.18, z = 1.98, p = 0.04) such that low SES participants in the stress condition were less likely to initiate AR than low SES participants in the no stress condition and even more so than high SES participants in the stress condition. Thus, we observe that when exposed to an achievement-related stressor, low SES participants are less likely to take measures to regulate affect than high SES participants.

POSTER C-19

PARENT FEEDING TO REGULATE A CHILD'S EMOTIONS MEDIATES PARENT AND CHILD EMOTIONAL EATING ONLY AMONG FATHERS

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Descriptors: emotional eating, parent emotion regulation feeding, moderated mediation

For some, emotional eating (EE) represents a maladaptive form of coping with negative affect that may be reinforced within families. Prior work has shown that the association between parent EE and child EE is impacted by parent feeding practices. However, the bulk of this work is on mothers; we do not know if this relation holds in fathers. The present study uses a moderated mediation model to examine whether parent gender moderates the mediating role of parent feeding practices (e.g., emotion regulation and restriction) in the association between parent EE and child EE. We theorize that, in the context of high parent EE, fathers' (vs mothers') feeding behaviors may be particularly predictive of children's EE. Parents (86 fathers, 324 mothers) of an elementary school-age child completed an online survey through Qualtrics Panels. Results suggested that adjusting for parent-reported stress, negative affect, and personal emotion regulation strategies, parent gender significantly moderated the mediation of parent EE and child EE by parent feeding practices used to regulate child emotion (CI [-.33, -.02]), but not restriction of child eating. Further decomposition of the sample revealed that the mediation of parent and child EE by emotion regulation feeding was only significant in fathers (beta = .15, CI [.01, .31]). These findings support further investigation of fathers' eating and feeding practices, and offer insight into how gender-specific parent feeding practices may interact with child emotion regulation development to promote disinhibited eating behaviors in children.

POSTER C-20

HOW ARE EMOTIONS RELATED TO EVERYDAY SPENDING? AN EXPERIENCE SAMPLING STUDY

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Descriptors: ESM, finance, spending

Higher financial stress is related to lower physical health and higher psychological distress, highlighting how financial stress affects general well-being. In the present study, we examine how everyday spending is associated with state emotion to elucidate how this aspect of people's finances affects well-being at a momentary level. Seventy-nine adults recruited from the community completed experience sampling surveys eight times a day for a week. At each survey, participants reported their momentary emotion, and when participants endorsed spending money, they reported the extent to which the spending was enjoyable, stressful, necessary, and in their control. Using multi-level modeling, we examined how negative and positive emotion (entered simultaneously) predicted each of the four aspects of spending. Spending that was less enjoyable, more stressful, more necessary, and less in people's control was significantly associated with higher negative emotion, ts(395)>2.69, but not positive emotion, ts(395)<1.75. These findings held after taking into account participants' age, gender, and socioeconomic status. These results highlight how everyday spending affects people's momentary well-being, demonstrating specificity to negative emotion. Future research should examine the direction of the associations between spending and emotion to test, for example, whether people are spending money to regulate their emotion. Finally, spending is not inherently good or bad; instead, research is needed to clarify in which contexts and for which individuals is spending adaptive or maladaptive.

POSTER C-21

THE PREDICTIVE POWER OF LOW-AROUSAL POSITIVE AFFECT

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Descriptors: low-arousal positive emotion, LAPA vs HAPA

Relative to high-arousal positive affect (HAPA), low-arousal positive affect (LAPA) is rarely included in research on positive affect and emotion. To gauge the possible cost of omitting LAPA from such research, two studies were conducted comparing the unique contribution of HAPA (e.g., alert, excited, strong) and LAPA (e.g., calm, relaxed, content) in predicting variance in measures of well-being and mental health. In two studies, multiple regression analysis revealed that LAPA uniquely predicted life satisfaction, depression, feeling good, mindfulness, anxiety and stress beyond HAPA. These data indicate that inclusion of LAPA in research can improve the field's ability to investigate the causes and effects of positive affectivity. Furthermore, the results indicate that when both LAPA and HAPA are assessed, LAPA predicts mindfulness, stress and anxiety whereas HAPA does not. Theoretical and practical implications are discussed.

POSTER C-22

COULDA SHOULDA WOULDA: PEOPLE PAY FOR INFORMATION TO EXPERIENCE REGRET

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Descriptors: regret, curiosity

Post-decision information seeking is often important for accurate evaluation of choices (Summerville, 2011; Van Dijk & Zeelenberg, 2007), but can lead to negative emotional experiences. The Balloon Analogue Risk Task (BART) presents an interesting paradigm in which to study post-decision information seeking because learning the safe limit of the balloon often reveals that one could have inflated the balloon more, or should have inflated it less, so often leads to regret. The purpose of the research is to examine whether people are motivated to seek information even if it leads to the feeling of regret. In two experiments using an adapted BART (E1 and E2, each N = 30), subjects could learn the balloon's safe limit post-decision, either for free (E1) or for a small cost (E2). Subjects rated their emotions on a visual analog scale (from sad to happy) after seeing the outcome of the trial, and then rated how their emotions had changed (worse, the same, better) either after 2s of exposure to the balloon's safe limit, or after a delay of the same length. Most subjects (E1: 100 percent, E2: 63.3 percent) sought information about the balloon's limit at least some of the time. Linear Mixed Effects models were used to determine the effects of such information on subsequent emotions and indicated that information made subjects feel worse than no information (E1: z = 2.70, p = .007; E2: z = 2.71, p = .007). These studies show that far from being averse to information that might lead to regret, people will often seek such information even when they have to pay for it.

POSTER C-23

COGNITIVE-AFFECTIVE PROCESSES AND THEIR MEASUREMENT

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Descriptors: emotional information processing, measurement reliability

Cognitive measures of emotional processes are widely used in the investigation of emotional disorders. An often neglected, yet important, issue with cognitive assessment in psychology is the internal consistency, or reliability, of task outcomes. While it is common practice to report the internal reliability of questionnaire measures in psychology, it is the exception rather than the rule to report task reliability for cognitive measures (Gawronski, Deutsch, & Banse, 2011). Given that the internal consistency of a measure directly influences the precision of our statistical analyses and therefore the confidence we can place in our results, we recommend that researchers routinely estimate and report the internal consistency of their cognitive-affective measures. We describe several useful tools that have been developed for this purpose. We propose that the practice of routinely reporting the internal consistency of our measures will significantly improve the development of measures and researchers ability to assess the robustness of empirical findings in affective science.

POSTER C-24

TEMPORAL DYNAMICS OF SPONTANEOUS AFFECTIVE PROCESSING: LONGER NEGATIVE EMOTIONAL EVENTS ARE RATED MORE POSITIVELY

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Descriptors: valence, arousal, temporal

Emotions dynamically unfold over time. Process models of emotion regulation emphasize how emotional responses change as a function of regulation strategy, but less work has focused on the temporal dynamics of emotion in the absence of regulation instruction. Based on previous work showing that people spontaneously regulate, we predicted that negative stimuli viewed for a longer duration would be rated more positively, due to simply being afforded the time to regulate in accordance with endogenous goals. We collected ratings of valence and arousal in response to IAPS images using a 2 x 2 between-subjects design. Participants (N=99) were randomly assigned to rate the image itself or rate how the image made them feel (phrasing condition) and to view the image for 2 or 7 seconds (duration condition). We used principle components analysis to identify an eigenvector of positivity that explained the maximal variance across the valence and arousal dimensions. Duration was a significant predictor in a linear mixed model, consistent with the hypothesis that longer durations predict positivity: t(98)=-1.95, p=.05. Phrasing was not a significant predictor of positivity, t(98)=-1.141, p=0.2567. These results suggest that people are motivated to regulate in order to feel less negative. This demonstrates our natural propensity to transform negative experiences into more positive ones, which may act as a buffer against a range of psychopathologies. Future work might examine the temporal dynamics of emotions to more comprehensively sample the time where natural engagement may occur.

POSTER C-25

A COMPUTATIONAL PROCESS MODEL OF AFFECT DYNAMICS

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Descriptors: computational modeling, affect dynamics, reward prediction error

It has recently been suggested that positive affective states are the result of repeated positive reward prediction errors (RPEs; that is, outcomes whose values exceed expectations), and vice versa for negative affective states. Here, we present a computational process model of affect dynamics as reflecting individuals' recent history of RPEs. Affect dynamics in our model reflect three core computations: (1) an individual's affective valence reflects their recent history of RPEs; (2) RPEs are themselves calculated relative to an internal estimate of the average reward of the environment, and (3) affective states may alter the evaluation of outcomes in an affect-congruent manner. Individual differences in any of these three computations— precisely quantified by different parameter values in the computational model— result in distinct affect dynamics in response to the same experiences. We present simulations of this model under different parameter values, with a focus on identifying dysfunctions of neural computation that may lead to pathological affect dynamics in psychiatric conditions such as bipolar and borderline personality disorders. Our results suggest that mood oscillations observed in bipolar disorder may result from an excessively strong coupling between affect and outcome evaluation (computation 3 above), whereas affective instability as observed in borderline personality disorder may result from an overweighting of the most recent RPEs in affective states (computation 1). The model also makes testable predictions concerning affect dynamics in healthy individuals.

POSTER C-26

MOOD DISORDERS AND ADHERENCE TO THERAPEUTIC GUIDELINES IN PATIENTS WITH MULTIPLE SCLEROSIS

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Descriptors: multiple sclerosis, mood disorders, adherence to treatment

Introduction: Multiple sclerosis (MS) is responsible for the occurrence of a variety of neurological symptoms. Objective: Evaluation of the impact of mood disorders on adherence to recommended treatment regimens in patients with MS treated with immunomodulating drugs.

Material and methods: The study was conducted among 226 MS patients. In the study, standardized questionnaires were used: the Beck Depression Inventory (BDI), the Hospital Anxiety and Depression Scale (HADS–M) and the Multiple Sclerosis Treatment Adherence Questionnaire (MS–TAQ). The results were analyzed statistically. Results: Analysis of the research material revealed that in both groups, patients who adhered (ADH) and did not follow treatment recommendations (non–ADH) there is a correlation between the severity of side effects of treatment and the severity of anxiety experienced by the MS patients (ADH r=0.1636, p=0.0376; non–ADH r=0.3927, p=0.0040); as well as the presence of feeling of irritation and aggression (ADH r=0.2142, p=0.0062; non–ADH r=0.3424, p=0.0130). In ADH group, it has also been shown that with the increase of MS symptoms that may indicate depression, the severity of side effects of treatment is increased (r=0.1791, p=0.0226). On the other hand, in non–ADH group with the increase of MS symptoms that may indicate depression, increases the number of barriers to adherence (r=0.3397, p=0.0137). Conclusions: Mood disorders such as anxiety and depression have a significant negative impact on adherence to treatment recommendations in MS patients.

POSTER C-27

DEPRESSION AND THE ROLE OF EXPECTED AFFECT IN EVERYDAY DECISION MAKING

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Descriptors: depression, expected affect, decision making

Decision-making difficulty is a symptom of major depressive disorder (MDD) that negatively impacts the course of the disorder. Theories suggest that decision-making difficulty in MDD is, in part, driven by affective disturbances that characterize the disorder. For example, compared to healthy people, people with MDD expect to feel lower positive affect (PA) and higher negative affect (NA) for daily activities. In an ongoing experience sampling study, we are examining whether there are similar disturbances in expected PA and NA associated with depression in the context of anticipated decisions in daily life. Adults from the community (n=13; M age=36.8) completed a self-report measure of depressive symptoms and answered surveys on their mobile devices five times a day for two weeks. At the first survey of each day, they described a decision they anticipated making that day and rated their expected PA and NA for the two decision options under consideration. For these preliminary results, we examined aggregated data and found that depressive symptoms were associated with lower expected PA (r=-0.21) and lower expected NA (r=-0.35) for anticipated decision options; the direction of these findings was replicated using multilevel modeling. These preliminary findings suggest that, unlike anticipated activities, expected PA and NA are blunted for anticipated decisions in depression. It may be that decision-making is difficult for depressed people due to blunted affective salience across decision options under consideration. Data collection is ongoing, and findings will be updated.

POSTER C-28

LIFETIME STRESS EXPOSURE AND REWARD PROCESSING: TIMING AND TYPE OF STRESSORS MATTER

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Descriptors: stress, neural response, monetary rewards

Life stress is implicated in the etiology of a variety of psychological disorders. The question of precisely how stress leads to mental illness, however, remains unclear. Stress can induce changes in the function of neural regions associated with reward processing, and abnormal neural response to rewards is associated with diverse forms of mental illness. In this study, we examined neural response to rewards using event-related potentials and investigated whether these neural responses to reward differed as a function of the timing and life domain of individuals' cumulative lifetime stress exposure. Participants (n = 201) engaged in a forced-choice guessing task and received feedback indicating monetary gains or losses based on their selections while an electroencephalogram was recorded. Participants also completed the Adult Stress and Anxiety Inventory (STRAIN), which assesses stressful events in multiple life domains. Results demonstrated that early stress (vs. proximal stressors) was particularly strongly related to abnormalities in participants' neural responses to rewards (r = .15, p = .04). Additionally, stressors relating to interpersonal loss were uniquely associated with a reduced neural response to rewards (r = -.21, p = .004). These results replicate prior research demonstrating that stress is associated with abnormal neural response to rewards, but extend this line of research by showing that these effects are not constant across different types of stress exposure but differ by the timing and type of life stressors experienced.

POSTER C-29

HOW COGNITIVE AND REACTIVE FEAR CIRCUITS OPTIMIZE ESCAPE DECISIONS IN HUMANS

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Descriptors: fear, defensive circuit, decision

Flight initiation distance (FID), the distance at which an organism flees from an approaching threat, is an ecological metric of cost-benefit functions of escape decisions. We adapted the FID paradigm to investigate how fast or slow attacking 'virtual predators' constrain escape decisions. We show that rapid escape decisions rely on 'reactive fear' circuits in the periaqueductal gray and midcingulate cortex (MCC), while protracted escape decisions, defined by larger buffer zones, were associated with 'cognitive fear' circuits which include posterior cingulate cortex, hippocampus, and the ventromedial prefrontal cortex, circuits implicated in strategic avoidance and behavioral flexibility. Using a Bayesian Decision Model, we further show that optimization of escape decisions under rapid flight were localized to the MCC, a region involved in adaptive motor control, while the hippocampus is implicated in optimizing decisions that update and control slower escape initiation. These results demonstrate an unexplored link between defensive survival circuits and their role in adaptive escape decisions.

POSTER C-30

TRAUMA-INFORMED COMMUNITY EMPOWERMENT: TRAINING IN TRAUMA-INFORMED CARE AND STRESS REDUCTION FOR SOUTH SUDANESE PARAPROFESSIONALS

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Descriptors: conflict, trauma, empowerment

Following 50 years of civil wars and achievement of an independent state, South Sudanese individuals are still subject to continuous political and community violence, with the entire population directly experiencing Criterion A traumatic events. Accordingly, over half the population has posttraumatic stress symptoms (PTSS). But, despite clear clinical need, mental health resources in the region are scarce to nonexistent, and the majority of services are provided by paraprofessionals (e.g., tribal chiefs, teachers, police), who encounter trauma in their work but are not trained to address it. To meet this need, we trained paraprofessionals in introductory trauma support skills as well as to provide stress reduction training, a program we call Trauma-Informed Community Empowerment (TICE). South Sudanese paraprofessionals (N=75) participated in a three-week intensive training followed by six weeks of mentorship in trauma-informed care. They were assessed using a multi-pronged psychobiological assessment designed to examine PTSS, affect dysregulation, empowerment, and physiological stress flexibility (using the sympathetic and parasympathetic components of heart rate variability [HRV]). After nine weeks, PTSS (time 1 46% with PTSD, time 2 14% (x^2 (1) = 3.48, p = .06) and affect dysregulation improved significantly (time 1(M = 2.91, SD = .65) time 2(M = 2.41, SD = .63), (t(40) = 4.08, p<.000). Furthermore, small trending changes in sympathetic and parasympathetic elements of HRV. These results highlight the possibility of reducing the impact of trauma in high-conflict settings.

POSTER C-31

USE AND EFFECTIVENESS OF SITUATION SELECTION AND MODIFICATION IN AN ADULT LIFESPAN SAMPLE: THE ROLES OF STIMULUS VALENCE AND AROUSAL

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Descriptors: emotion regulation, lifespan development, age differences

Lifespan emotional development theories suggest that older adults can maintain emotional well-being by avoiding hard-to-regulate highly arousing negative emotion elicitors (Charles, 2010; Urry & Gross, 2010). This study systematically varied stimulus arousal as well as valence to examine the degree to which younger (YA), middle-aged (MA), and older adults (OA) avoided arousing negative material using situation selection and modification. Participants first chose from among low- and high-arousal negative, neutral, and positive stimuli for 15 minutes (selection), then viewed low- and high-arousal negative and positive videos with the option to skip material (modification). Situation selection showed an age x valence interaction, $F(4,444) = 3.59$, $p = .007$: Whereas MAs showed no valence preferences, YAs showed negativity avoidance, and OAs showed both positivity-seeking and negativity-avoidance. OAs also chose more low- than high-arousal stimuli. Though selections predicted affect, age did not moderate the selection-affect relationship. Situation modification showed a valence x arousal interaction, $F(1,180) = 54.21$, $p < .001$, with people skipping more negative and high-arousal content. Bayes factors supported age similarity in situation modification. Except for low-arousal negative videos, participants reported lower affect in videos in which they skipped than those they did not. Age did not moderate this relationship. This research shows some support for age differences selective engagement with emotional stimuli, as well as age similarity in effects on mood.

POSTER C-32

INVESTIGATING THE FUNCTIONAL SIGNIFICANCE OF FRONTAL-BRAINSTEM PATHWAYS IN THE N-BACK TASK WITH 7T FMRI

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Descriptors: working memory, arousal, autonomic control

The regulation of arousal plays a central role in modulating cognitive performance. Neuroscience research in animal models and humans has linked frontal-brainstem pathways to autonomic recruitment during cognitive and affective tasks. However, the limited resolution of conventional human neuroimaging impairs localization of brainstem regions. Here we use 7 Tesla fMRI to investigate brainstem recruitment during an N-back task (n = 23). Participants completed alternating blocks of visual 1-back and 3-back tasks, and provided pre- and post-test reports of subjective feelings (e.g., arousal and engagement) and evaluations of task difficulty and performance. Consistent with prior work, participants were more accurate in 1-back compared to 3-back tasks. Reaction times were faster during 1-back compared to 3-back tasks. Self-report data indicated that participants felt more energetic and engaged, but performed worse than expected during the task. To test our hypothesis, we used unsmoothed, 1mm cubic resolution fMRI data to contrast brain activity during 3-back and 1-back tasks. This analysis revealed effects in bilateral anterior mid-cingulate, anterior insula, lateral prefrontal cortex, and parietal cortex. Notably, we observed bilateral midbrain clusters adjacent to the periaqueductal gray. Patterns of activity in these midbrain clusters predicted individual differences in reaction time. Whereas prior work has implicated cortical frontoparietal areas and frontostriatal circuitry in working memory, these findings provide functional evidence for midbrain involvement in this task.

POSTER C-33

SEX DIFFERENCES IN INFANT EMOTION MATCHING FROM 9 TO 21 MONTHS OF AGE

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Descriptors: emotion matching, infancy, development

Females typically outperform males in tests of emotion understanding among preschoolers and older children, but little is known about sex differences or individual differences in emotion perception prior to age 3. We used an eye tracking method to investigate infants' "emotion matching" across face and voice at 9, 15, and 21 months in a longitudinal sample of 40 infants (20 F). Our task presented infants with happy, sad, angry, and neutral faces and voices asynchronously. Each trial lasted 10s. A family expressiveness questionnaire (FEQ) was completed by a parent. We did not find stability in the trajectory of emotion matching development across these time points. However, we did identify sex differences such that males viewed happy faces paired with happy audio ~700ms longer than females (95% HDI=[-340, 1744]), and no audio ~210ms longer than females (95% HDI=[-394, 832]). In addition, males benefited more from family expressiveness, with high FEQ males attending to sadness up to ~600ms longer when paired with sad audio (95% HDI=[-73, 2113]). FEQ score had less of an impact on females, who attended to sad faces more than males regardless of FEQ score. Thus, our data suggest that sex differences in perception of emotions may emerge within the first two years, and family expressiveness may impact how males and females attend to emotional faces differently given their environment. These findings hold broader implications for early socialization for the development of emotion perception.

POSTER C-34

SLOW, BUT NOT FAST, ESCAPE DECISIONS ARE SWAYED BY TRAIT ANXIETY

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Descriptors: anxiety, flight distance, behavioural ecology

Theoretical models suggest that under conditions of imminent danger, 'reactive fear circuits' quickly steer the organism to escape from threat. When the organism is given time to contemplate the despairing nature of the threat, 'cognitive circuitry' involved in decision flexibility direct the organism to conscious strategic avoidance. Adjacent to these theories is the idea that fear results in fast reactions mediated by the hypothalamus and periaqueductal gray, while sustained fear is a model for anxiety and mediated by amygdala-hippocampal-frontal circuits. We wanted to ask the question of whether individual differences in trait anxiety selectively evoke ativity in the 'cognitive fear' circutry, but not the 'reactive fear' circuitry. Human subjects (N=24) with high trait anxiety showed no impairment in their decision to escape fast attacking threat. However, early flight in high trait anxiety was observed in the slow attack conditions suggesting anxiety only impairs escape decisions when the subject has time to contemplate the escape choice. Functional magnetic imaging findings supported our behavioral results by showing that during fast escape choices, trait anxiety did not correlate with any brain structures, however, for slow escape choices, increased activity was observed in the amygdala, hippocampus, and insula, regions associated with conscious fear states. These findings suggest that when reactive fear circuits and behaviors are evoked, anxiety plays little or no role in adaptive escape.

POSTER C-35

SOCIAL PREDICTION IN THE THEORY OF MIND NETWORK

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Descriptors: social prediction, impression formation, theory of mind

Socially relevant tasks reliably elicit activity in the theory of mind network (ToMN), but the computations these regions implement have remained unclear. Recent work has proposed that ToMN activity tracks violations of social expectations, i.e. social prediction error. But social predictions are informed by multiple sources of information, such as the disposition of the person, as well as their compliance with both prescriptive (i.e. what they should do), and descriptive norms (i.e. what is typical). We tested the relationship between ToMN activity and these three types of social prediction. Participants read stories in which agents made moral (or immoral) decisions. Additional information reframed each story, reversing participants' initial moral judgments. Study 1 normed these stimuli in an online sample (N = 554), identifying (and orthogonalizing) dispositional, prescriptive, and descriptive prediction error as principal components. In Study 2, participants read the same scenarios in the scanner (N = 20). Multilevel models provided participant-independent estimates of Study 1 principal components and Study 2 ToMN activity for each scenario. Scenarios that violated dispositional and prescriptive predictions elicited greater ToMN activity [Dispositional, B = 0.10, t(487) = 2.54, p = .022; Prescriptive, B = 0.18, t(487) = 2.46, p = .028] whereas ToMN activity was not significantly related to descriptive prediction error. Thus, the present work suggests that the ToMN is sensitive to social prediction error on the basis of both dispositional and prescriptive violations.

POSTER C-36

EFFECTS OF MENTAL IMAGERY PERSPECTIVE AFFECT IN INDIVIDUALS WITH SOCIAL ANXIETY

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Descriptors: imagery, social anxiety, affect

Social anxiety (SA) is associated with negative, exaggerated, repetitive observer-perspective self-imagery. We examined the effect of mental imagery perspective on positive and negative affect in individuals with low and high SA. Participants were 252 college students randomly assigned to one of three processing conditions: observer-perspective imagery (OIM), field-perspective imagery (FIM), or verbal (V). After training in their condition, participants listened to 50 social scenarios depicting the self in social situations. Scenarios began ambiguously and ended positively or negatively (between subjects). Self-reported state positive and negative affect (PA, NA) were measured immediately before and after listening to the scenarios. We conducted four 2 SA group (low, high) x 3 condition (OIM, FIM, V) x 2 time (pre, post) ANOVAs (for positive/negative scenarios x PA/NA as outcome). Against hypothesis, none of the three-way interactions of group x condition x time were significant. For positive scenarios, there was an interaction of group x time for both PA (F(1,120)=5.17,p=.025) and NA (F(1,120)=5.63,p=.019)). PA decreased in both groups, but less so in the high SA group. Likewise, NA decreased in both groups, but more so in the high SA group. For negative scenarios, there were no significant interactions, only expected main effects of group and time.

Therefore, processing positive social scenarios depicting the self appears to have beneficial effects for high SA individuals relative to low SA individuals, but processing instructions do not moderate this relationship.

POSTER C-37

FEELING WOUND UP: TIME PERCEPTION AND SOMATOFORM DISSOCIATION FOLLOWING AN EMOTION INDUCTION TASK

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Descriptors: time perception, emotion regulation, body awareness

Research has shown that emotional experiences may alter body awareness and the perception of time. The current study seeks to assess the relationship between time perception in response to an emotion induction and altered body experiences. Participants were asked to construct neutral and trauma narratives. Results indicate time distortion during the neutral narrative condition significantly predicts altered body experiences, F(1, 22)=5.75, p=0.025, R2=0.20. Furthermore, severe childhood trauma exposure moderates the relationship between time distortion during the neutral narrative condition and bodily experience, accounting for significantly more of the variance in the model, R2=0.40, p=0.016. There was not a significant relationship between time distortion during the trauma narrative condition and altered bodily experiences. In fact, participants were more accurate in time perception during the trauma narrative condition (M=0.00 SD=2.34) than in the neutral narrative condition (M=1.1 SD= 6.24), suggesting that emotion may serve to "anchor" participants in time.

POSTER C-38

INTRANASAL OXYTOCIN AND RESPONSE INHIBITION IN YOUNGER AND OLDER ADULTS

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Descriptors: social attributes, oxytocin, elderly

The intranasal administration of the neuropeptide oxytocin has mainly been related to improvements in several domains such as emotion recognition and memory, but to date the effects of oxytocin in aging remain largely unknown. In a randomized, double blind study, we investigated whether oxytocin facilitates inhibitory processing in older adults compared to younger adults. Forty-one older adults and 37 younger adults participated in this study two times, receiving a single intranasal dose of 40 IU of placebo and oxytocin in randomized order 45 minutes before engaging in the task. Inhibition was measured with a Go/NoGo task which included happy and neutral faces as targets and distractors shown on a computer screen. Preliminary results indicate effects for happy and neutral faces, but only in the distractor condition. For happy distractors, women rejected correctly happy faces more accurately than men did, both in the placebo and oxytocin conditions. A main effect of age was observed for the neutral distractors, where older adults were more successful in inhibiting responses than younger adults during oxytocin and placebo treatments. We did not observe effects of oxytocin in the different tasks. The role of oxytocin was not clear distinguished in the tasks. In sum, our findings showed that age and gender can influence inhibition but their effects depend on the displayed emotions. This suggests that the ability to inhibit interfering distractors may remain intact despite of age and that deficits in inhibition may be selective.

POSTER C-39

PUPILLARY CHANGES DURING THE CUED REAPPRAISAL OF FACES

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Descriptors: pupillometry, reappraisal, face processing

Cognitive reappraisal is a widely used form of emotion regulation, but it has proven difficult to define biomarkers that track reappraisal. One promising candidate is pupil size. However, results to date have been inconsistent, possibly due to a reliance on complex scene processing, and no study has examined pupil responses to the reappraisal of positive emotion. To clarify the impact of reappraisal on pupil size, we used a novel task paradigm to investigate pupillary changes during the reappraisal of negative and positive emotion in response to faces.

We presented neutral faces paired with appraisal frames (N = 30; mean age = 19.7 years old; 70% female). These frames were designed to be emotional cues (Positive, Negative, or Neutral) that provided semantic information about a person. Participants first heard a frame and then saw that person's face before an instruction cue (View or Reappraise) was presented. Participants then either viewed or reappraised their emotional responses to the person during a second face presentation. We found a main effect of instruction on pupil size during face presentation ($F(1, 116) = 13.56$, $p = .0004$, $?2 = .88$); for both Negative and Positive emotion, pupil diameter was larger for Reappraise trials relative to View trials (ps < .02). One interpretation of the increased pupillary response during reappraisal is that it reflects effortful cognitive control. The present study advances knowledge by testing pupillary changes during the regulation of both negative and positive emotion during face processing.

POSTER C-40

USING SOMATOSENSORY STIMULI IN AN ATTENTION-BASED INTERVENTION TOWARDS REDUCING RUMINATION

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Descriptors: rumination, attention, sensory stimuli

As key traits of psychiatric disorders with impaired attention control, intrusive negative cognitions (e.g. ruminations) are primary, salient, and predict poor outcomes with traditional interventions. To address the attentional control rumination relationship, we tested whether training 25 high-ruminating participants on a novel intervention proposed to engage the attention network reduces rumination. The intervention capitalizes on a preserved neurocircuitry to use attention to somatosensory stimuli graded from low to high intensities while viewing idiosyncratic rumination prompts to redirect attentional focus. We hypothesized the intervention will increase attention network engagement and reduce rumination.

Post-intervention self-reported rumination decreased ($t(25)=-3.77$, p=.001, d=-.75) and attention network activation increased ($t(25)=2.57$, p=.017, d=.51) compared to pre-intervention. The post-intervention attention network showed greater activation during accurate low-intensity stimuli trials ($t(54)=2.42$, p=.02, d=.65). Rumination change was nonsignificantly related to attention change but exploratory analyses suggested rumination change was positively correlated (p<.005) with activation change in the parahippocampal gyrus and precuneus. The intervention yielded change in neural reactivity and rumination. Though attention network change did not mediate rumination change, associations in regional activation change could suggest decreased engagement in autobiographical memory processes. These findings could suggest a new intervention pathway for treatment-resistant psychopathology.

POSTER C-41

INTERACTIVE EFFECTS OF PARENTING AND ADRENARCHEAL TIMING ON FUNCTIONAL BRAIN DEVELOPMENT AND MENTAL HEALTH — A LONGITUDINAL STUDY

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Descriptors: parenting, puberty, affective brain function

Pubertal timing and parenting have both been associated with increased risk for psychopathology symptoms during childhood and adolescence. However, little is known about neural mechanisms underlying these associations. The current study examined the moderating role of the timing of adrenarche on associations between parenting and changes in affective brain function from late childhood to early adolescence, and whether these changes are associated with symptom development. Participants were 66 (34 females) children, 34 classified as relatively early and 32 as late in adrenarcheal timing based on adrenal hormone levels in late childhood. At two time-points participants completed an affective face fMRI task. Their parents reported on five dimensions of parenting, and on child symptoms. Poor parental monitoring and supervision at age 9 was associated with changes in brain activation to happy and angry faces in the right ventrolateral prefrontal cortex and frontal pole (rFP), respectively, and adrenarcheal timing and sex moderated these relationships. Change in rFP activation to angry faces was in turn positively associated with internalizing symptoms at age 12 for 'late' developing males. Furthermore, positive parenting at age 9 was associated with change in activation to angry faces in the left ventrolateral PFC and adrenarcheal timing and sex moderated this relationship. These findings suggest that adrenarcheal timing and parenting interact to predict developmental change in affective brain function, and this may be an important mechanism for the emergence of psychopathology.

POSTER C-42

MOOD AND PHYSIOLOGICAL REACTIVITY TO SADNESS AMONG INDIVIDUALS WITH A HISTORY OF DEPRESSION

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Descriptors: depression, mood reactivity, psychophysiology

Major Depressive Disorder (MDD) is a chronic and relapsing disease associated with significant economic burden and disability (Kessler et al., 2005). Research is needed to better understand mechanisms associated with relapse to depression; specifically, how do responses to sad mood (i.e., mood reactivity) increase risk for depressive episodes? MDD is characterized by low levels of positive mood and high levels of negative mood (Rottenberg, Gross, & Gotlib, 2005). Research has shown that currently depressed individuals exhibit decreased physiological and mood reactivity to negative-valenced stimuli compared to healthy controls (Bylsma et al., 2007). It has been suggested that a blunted emotional and physiological response to sadness-eliciting stimuli may contribute to the maintenance of depressive symptoms or depressive relapse (Rottenberg & Gotlib, 2004). Far less research has examined whether formerly depressed individuals exhibit mood and physiological reactivity in response to sadness. The present study aims to investigate the relationship between cardiovascular and mood reactivity in response to a sad mood induction in formerly depressed individuals. Preliminary analyses (N= 43; 13 formerly depressed, 30 controls) results indicate lower high frequency Heart Rate Variability (HF-HRV) predicted lower levels of positive affect following a sad mood induction (beta = 35.28, p < .05); however, no differences were found by group. Data collection is ongoing and additional analyses will examine whether rumination mediates the relationship between HF-HRV and mood reactivity.

POSTER C-43

MORE THAN MEETS THE EYE: PHYSIOLOGICAL EFFECTS OF DIRECT EYE GAZE ON TRAUMA EXPOSED INDIVIDUALS

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The New School

Descriptors: eye contact, psycophysiology, trauma

Eye contact serves as an important social cue, as its interpretation affects social engagement. Traumatic experiences may impact one's emotion regulation abilities, behavioral flexibility and basic social processing-all capacities necessary for engaging in social interaction. Thus, trauma survivors may perceive eye contact differently than those who have not experienced trauma. It was hypothesized that greater exposure to trauma would be associated with autonomic nervous system activity in response to the direct gaze of a computerized avatar (the "virtual other" task) versus averted gaze, particularly if the avatar's affect displayed anger. Physiological responses were indexed by Respiratory Sinus Arrhythmia (RSA) - a measure indexing parasympathetic nervous system activity, as participants (n=39) with a history of interpersonal violence viewed the avatars displaying either happy, angry or neutral facial expressions. There was an interaction between trauma and gaze direction, such that participants with trauma exposure had blunted RSA reactivity in response to direct gaze. Participants' RSA in the direct gaze VO conditions were negatively correlated with trauma exposure severity (r=-.346, p=.03) as opposed to the averted gaze conditions (r=-.309, p=0.06), regardless of emotional expression. These findings suggest that individuals with trauma exposure show reduced autonomic control in response to cues of social engagement, particularly in social situations that involve direct gaze or interaction, indicating a perception of threat in response to eye gaze.

POSTER C-44

EMOTIONAL AWARENESS AND UNPLEASANT REPETITIVE THINKING: DIFFERENTIAL ASSOCIATIONS BETWEEN TRAIT AND DAILY LIFE MEASURES

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Descriptors: emotional awareness, worry, rumination

Emotional awareness (EA) is composed of one's ability to identify one's own emotions (clarity) and the attention one places on one's own emotions (attention). In general, EA is associated with diminished psychopathology. In the current study, we examined EA (i.e., clarity and attention) and unpleasant repetitive thinking (URT), specifically worry and rumination. Participants (n=172) came to the lab and completed trait measures of the study variables followed by a week of daily diaries which assessed various aspects of URT. At the trait level, clarity was moderately negatively correlated with rumination (r= -.32) and worry (r= -.28), and attention was weakly positively correlated with rumination (r= .14) and worry (r= .16). The relations between trait EA and daily measures of URT were examined using multilevel modeling. Whereas clarity was associated with less trait URT, in daily life, clarity predicted more frequent URT (Beta= .17) and more difficulty stopping thoughts (Beta= .15). Attention was not related to URT in daily life. Our results suggest that in the long run, clarity may be protective against pathological URT, however, clarity may also make people more aware of unpleasant thoughts in daily life. This awareness may in turn help prepare people to use more adaptive emotion regulation and reduce pathological URT in the long run. Future research should clarify associations between EA, emotion regulation, and psychopathology across trait and daily life measures.

POSTER C-45

MEASURING COMPASSION AND CLOSENESS AFTER EYE-GAZING

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Descriptors: eye-contact, eye-gazing, social anxiety

Eye-gaze is an important component of everyday social interactions and it is implicated in conditions such as social anxiety and autism. This study 1) surveyed people who attended a global annual event organized for the purpose of sharing an authentic eye contact and connection in public; and 2) tested direct vs averted eye-contact via video. 20 individuals from the "world's largest eye contact experiment" (study 1) reported an increase in self- and other-directed compassion, and an increase in closeness with others (measured by the Inclusion of Other in Self measure, IOS). In study 2, 51 participants were recruited via MTurk. In direct gaze, they reported more closeness of others and better perceptions of others' state of mind. However, self- and other-compassion was highest in the participants in the live event (IOS closeness F(2, 68) = 32.84, p < .05); IOS experience F(2, 68) = 28.25, p < .05). Overall social anxiety was negatively correlated with self-compassion (r(68)= -.501, p < .01), compassion for others (r(68)= -.457, p < .01), and it was positively correlated with social connectedness (r(68)= .280, p < .05). Findings suggest that anxious individuals may have lower levels of self-compassion. Future studies could continue to investigate self-compassion in clinical populations to specify its potential role in the maintenance of depression and anxiety, as well as how to increase compassion in treatment pathways.

POSTER C-46

DIFFERENTIATING THE APPRAISAL-RELATED EFFECTS OF INCIDENTAL EMOTIONS ON FRAMED RISKS

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Descriptors: decision-making, appraisals, emotion

Research on incidental emotions has shown unique appraisal-related effects on decision-making. Interestingly, guilt has been found to increase risk-taking via its appraisal of control, yet other emotions with similar appraisal patterns (e.g., pride) have not yet been explored. The current research investigated the relationship between an incidental emotional state's appraisals of pleasantness and control and framed risky decision-making. 120 participants were randomly assigned to emotion conditions and completed an autobiographical emotional memory writing task. Immediately afterwards, participants indicated their perceived level of control over the environment and rated the extent to which their emotional memory was pleasant and influenceable by themselves versus others. Next, participants completed the De Martino et al. (2006) gambling task where they chose between guaranteed financial options (framed as gain or loss) or risky gambles. Although emotion condition did not change overall risk-taking under framing, different appraisals related to the decision to gamble within emotion conditions. Results indicated that the decision to gamble under the loss frame related to self-agency appraisals within the guilt condition (r=.631), whereas in the pride condition it related to other-agency appraisals (r=.632). Findings suggest that although both pride and guilt are considered high control emotions, differentiating the type of control involved is important to understanding their effects on risk taking.

POSTER C-47

UNDERSTANDING THE STING OF "PSYCHO": A BEHAVIORAL STUDY OF STIGMATIZING WORDS ASSOCIATED WITH MENTAL ILLNESS FOR INDIVIDUALS AT CLINICAL HIGH-RISK FOR PSYCHOSIS

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Descriptors: internalized stigma, psychosis

Psychotic disorders such as schizophrenia have often been associated with negative stereotypes such as "dangerousness" and "violence". The consequences of integrating such stereotypes into one's identity—internalizing stigma—has been correlated with increased symptom severity and treatment deviation for patients with mental illness. However this relationship remains to be studied among patients at clinical high-risk (CHR) for psychosis, a group that experiences sub-threshold psychotic symptoms and is aware of their risk for developing psychosis. The current study recruited CHR patients from the Center of Prevention and Evaluation, New York State Psychiatric Institute (NYSPI)-Columbia University Medical Center (CUMC)—an outpatient research program for teenagers and young adults experiencing sub-threshold psychotic symptoms (n=14). Healthy Controls were recruited from NYSPI-CUMC (n=9). Each participant was shown 102 trait words and rated how much each trait related to mental illness and how positive or negative these words were. Results indicated a significant difference between patients and controls, wherein the patients rate trait words as being more strongly related to mental illness for both positive and negative words. The observed differences may underlie an increased salience among patients for the perceived stigma of mental illness. These results are currently being followed up in an fMRI study to examine the stigma processes in the brain—including impaired working memory—that are predictive of poor symptomatological and functional outcomes for CHR individuals.

POSTER C-48

SHAME ON ME: THE IMPORTANCE OF SHAME IN THE TREATMENT OF PTSD

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The New School for Social Research

Descriptors: shame, PTSD, interpersonal violence

Shame is a particularly salient emotion in survivors of internal personal violence (IPV) and is implicated in the development and maintenance of PTSD symptoms. Gilbert (2003) theorizes shame as a dual construct encompassing evaluations of others towards the self (external shame) as well as one's own evaluations towards the self (internal shame). There has been limited research in illuminating the role of shame, internal and external, in PTSD in addition to its impact on clinical interventions. In this study, 67 community dwelling women with exposure to IPV completed self-report questionnaires and a shame induction task. The study found that internal shame fully mediated (b = .41 SE = .45, p = .36) the relationship between trait anxiety and PTSD symptoms (b = 1.28 SE= .37, t (64) = 3.59 p > .001). External shame partially mediated the relationship (b =.75 SE = .39, p > .01). These findings support the notion that, for women with IPV, shame may be interfering in treatments for PTSD that target anxiety and fear, suggesting the potential effectiveness of shame-based interventions over fear-based strategies.

POSTER C-49

EXPRESSIVE FLEXIBILITY, EMOTION REGULATION, AND TRAIT ANXIETY IN INDIA AND THE UNITED STATES

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Descriptors: emotion regulation, culture, flexibility

Suppression, a maladaptive emotion regulation (ER) strategy, has been shown to lead to increased internalizing symptoms (Hofmann et al., 2009). Collectivistic cultures tend to use suppression more often than reappraisal, an adaptive ER strategy (Butler et al., 2007). Aldao et al. (2015) posited that flexibility in ER strategies is adaptive. The present study examined whether the adaptiveness of ER strategies is culturally dependent and whether flexibility in one's ER strategies is associated with anxiety. The Emotion Regulation Questionnaire (ERQ), Flexible Regulation of Emotional Expression scale (FREE), the Asian Values Scale (AVS), and the State Trait Anxiety Inventory (STAI-T) were administered to 296 participants (45.5% USA, 54.5% India), primarily males (55%), through Amazon's Mechanical Turk. Correlations revealed that as trait anxiety symptoms increased so did suppression scores (r=.292, p=.002). Suppression significantly differed between those from the USA and from India [F(1,295)=1.93, p=.007, p-eta2=.146], but when partialling out the effect of Asian values the difference became nonsignificant [F(1,295)=.811, p=.713]. As flexibility scores increased, trait anxiety decreased (r=-.128, p=.026); but partialling out the effect of Asian values reduced this relationship to nonsignificant (r=.04). While theory suggests Indian ER strategies might be less adaptive by Western standards, Asian emotional values might explain their maladaptive style. In sum, flexibility seems to be good for one's mental health and Asian values might explain the cultural differences seen.

POSTER C-50

NEURAL CORRELATES OF COGNITIVE REAPPRAISAL: IMPACT OF STRESS ON AFFECTIVE PROCESSING

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Descriptors: cognitive reappraisal, stress, fMRI

Early life stress may lead to emotion dysregulation and psychopathology. As early adversities may contribute to enhanced reactivity to subsequent stressors, stress in the adulthood potentially plays an important role in moderating the relationship between early life stress and brain activation during emotion regulation. This study aimed to characterize the neural activation related to stress during emotion regulation. 86 (41 females) young adults (aged 19-25, M=21.66; SD=1.80) took part in the study. Early Life Stress Questionnaire was used to measure the stress during childhood and Recent Life Changes Questionnaire to assess the stressful event in adulthood. fMRI was used to measure brain activity during performance of cognitive reappraisal. The whole-brain analysis (threshold T=3.19; p<.001 (unc.); cluster threshold=22) showed the main effect of early life stress in superior and inferior parietal gyri bilaterally (left: peak activation [-21 -52 50]; T=3.8; k=30 voxels; right: peak activation [24 -49 53]; T=3.7; k=27 voxels) as well as postcentral gyri during increasing negative emotions. There was an interaction between stress in childhood and adulthood in left frontal superior gyrus, precuneus, median and posterior cingulate gyri, and amygdala. Enhanced negative emotionality is one of the psychopathological symptoms. Exploration of the relationship between stress in the childhood and adulthood, and brain activation during emotion regulation is crucial to understanding the role of stress in developing various psychopathological symptoms, including emotion dysregulation.

POSTER C-51

REAPPRAISING REAPPRAISAL

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Descriptors: reappraisal, appraisal dimensions, emotion regulation

The mechanisms that make reappraisal an effective emotion regulation strategy remain unclear. We propose a new framework that views reappraisals as profiles of changes on key appraisal dimensions. In 3 complementary studies, we analyzed self-reported reappraisals of negative events along the dimensions of motive relevance, motive congruence, accountability, future expectancy, and coping potential. In Study 1, reappraisal profiles of reports written by 152 students (38% males) about coping with a distressing life event were assessed by 4 experts. In Study 2, 78 students (30% males) self-reported their appraisals and emotions associated with a distressing life event before and after reappraising it. In Study 3, 65 students (26% males) read guilt-inducing vignettes with and without reappraisal instructions before self-reporting appraisals and emotions. All reappraisal manipulations led to selective changes in appraisals that correlated with the extent of change in emotion. In all studies, reappraisal increased appraised motive congruence (Cohen's d = 77; d = .27; d = .45, respectively) and coping potential (d = .23; d = .50; d = .15) while changes to other appraisal dimensions were more context-dependent and idiosyncratic. Participants also altered the goal sets they used to evaluate the distressing situations (d = .52; d = .32; not measured in Study 3). Appraisal changes accounted for 15%, 31%, and 33% of regulation effectiveness variance across the 3 studies (adjusted R-squared). These findings highlight the promise of the novel appraisal-dimensional approach to reappraisal.

POSTER C-52

WORKING MEMORY LOAD AFFECTS SUBSEQUENT EXPOSURE TO NEGATIVE AND NEUTRAL PICTURES: AN EVENT-RELATED POTENTIAL STUDY

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Descriptors: working memory load, IAPS, event-related potential

Working memory load reduces the processing of emotional and neutral stimuli, but it is unknown whether these effects persist across time. Here, 70 participants performed a recognition task involving negative and neutral pictures that were novel or had previously been presented under high or low working memory load. Event-related potentials (ERPs) were used to assess recognition processing (parietal old/new effect) and motivated attention to negative and neutral pictures (late positive potential, LPP); participants also rated picture arousal and valence. As expected, a robust parietal old/new effect was observed, though this did not vary by working memory load. Emotional modulation of the LPP was affected by working memory load, $F(2,138) = 4.61$, p = .012: negative minus neutral LPPs were smallest for pictures previously presented under low working memory load, M = 2.58, SD = .54, compared to high working memory load, M = 4.10, SD = .56, t(69) = 2.16, p = .035 and novel pictures, M = 4.34, SD = .41, t(69) = 3.11, p = .003. In line with these results, emotional modulation of arousal and valence ratings also varied with load, Farousal(2,136) = 7.73, p = .001; Fvalence(2,136) = 3.66, p = .028, with pictures presented under low load eliciting less arousing and less unpleasant ratings compared to pictures presented under high load and novel pictures. Therefore, low working memory load at encoding leads to later reductions in emotional salience, whereas high working memory load does not have this effect, perhaps due to reduced emotional processing at first exposure.

POSTER C-53

THE EMOTIONS OF POLITICS: A SUMMARY OF EMOTIONS IN THE CURRENT SOCIOPOLITICAL CLIMATE OF THE UNITED STATES

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Descriptors: politics, emotion, election

The "Stress in America: The State of Our Nation" report by the American Psychological Association found that 59% of Americans point to "current social divisiveness" as a major source of stress. Divisive political topics, such as climate change, gun control, and free speech, generate strong emotions that affect behavior. As part of an NSF funded project exploring the role of emotion in politics, we conducted a nationwide representative survey (n=4000) in June 2017. At this time, 64% of Americans reported strong feelings of anger, disgust, fear, or sadness when they think about "recent political news" and 18% reported strongly feeling all four. In contrast, 40% of Americans reported feeling moderate to strong excitement or pride in response to "recent political news." Respondents were also asked their degree of worry about a range of potential events that could happen in the next 12 months. Approximately 71% of Americans reported being somewhat to very worried about the United States becoming involved in a "major foreign conflict," 67% reported being somewhat to very worried about increasing healthcare costs due to "changes in government policy," and 57% reported being somewhat to very worried about the government reducing or eliminating a program that is "essential to [one's] life." In contrast, 35% of respondents reported feeling not worried at all about being "discriminated against because of political views or opinions." Findings are presented and discussed with respect to the role of emotion in the current sociopolitical climate of the United States.

POSTER C-54

BLOWING EVERYTHING UP: IMPULSIVITY AS A MALADAPTIVE COPING RESPONSE TO DIFFICULTY DISENGAGING FROM NEGATIVE STIMULI

Nicole Kouri, Sarah Herzog, Wendy D'Andrea
The New School

Descriptors: impulsivity, emotion engagement, experiential avoidance

Impulsivity, or the tendency to act without regard for future consequences, can be conceptualized as a coping strategy employed to compensate for difficulty emotionally regulating, i.e., modulating the intensity or duration of negative emotional experiences. Similarly, experiential avoidance (EA) is characterized by the avoidance of internal distress, even when maladaptive in the long run. The present study examined the relationship between impulsivity, measured by the updated Balloon Analogue Risk Task (BART), and difficulty disengaging from threat cues on a dot-probe paradigm, in a community sample (N=138). Polynomial regression analysis indicated a cubic model best fit the data (R2=.16, F=9.32, p<.001). Impulsivity was significantly positively associated with difficulty disengaging from subliminal threat cues, with a slight curve downward around the 50th quartile. Controlling for gender, moderation analyses revealed that the relationship between difficulty disengaging and impulsivity was moderated by EA (R2=.1044, F=3.8745, p=.005). At low levels of EA, difficulty disengaging was negatively associated with impulsivity, but at high levels of EA, there was a positive relationship (albeit nonsignificant), wherein more difficulty disengaging was associated with greater impulsivity. These results support the role of impulsivity as a coping behavior used to disengage from negative experience. Avoidance of internal experience may be a contributing factor, increasing impulsive behavior in those with difficulties regulating emotions.

POSTER C-55

I BROUGHT IT ON MYSELF: THE INFLUENCE OF TRAUMA HISTORY ON ATTRIBUTIONS FOR ACTION IN RESPONSE TO EMOTIONAL STIMULI

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The New School

Descriptors: child maltreatment, self-blame, intentional binding

People who experience trauma often react with inappropriate self-blame, that is, they blame themselves for aspects of the trauma which they could not have caused. However, how emotion affects attributions has not been explored experimentally. Prior work shows that individuals are more likely to attribute actions to their volition if a) the result is consistent with their action and/or b) the result occurs in close temporal proximity to their action. Here, we utilize an intentional binding paradigm to assess attributions for actions among individuals with high and low trauma exposure, with and without emotionally-laden stimuli. Participants were instructed to randomly push or pull objects on a screen towards or away from themselves. The object moved immediately, or with a delay; and either moved in direction of the mouse movement, or in the opposite direction. Overall, people were more likely to attribute responsibility to themselves for moving emotional vs non-emotional stimuli, $t(184) = 2.891$, $p = .004$. Peculiarities emerged when examining the effect of temporal delays and inconsistent action-result trials in response to emotion ($r = .17$, $p = .02$). Specifically, people with increasing severity of trauma exposure rated themselves as more responsible for moving the mouse, in response to emotion stimuli, even when there was a significant delay between the movement of the mouse and the resulting movement on the screen, and the movement was in the opposite direction of the intended action. These findings demonstrate self-blame in response to action and emotion in trauma.

POSTER C-56

NON-INVASIVE PHYSIOLOGICAL MEASUREMENT OF AUTONOMIC NERVOUS SYSTEM ACTIVITY IN INFANT NONHUMAN PRIMATES

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Descriptors: comparative models, methods development, developmental models

Variation in affective processes is evident in humans and nonhuman animals early in development, but the study of variation is hindered by the lack of methods that can be deployed across species. Indexing activity in the sympathetic (SNS) and parasympathetic (PNS) branches of the autonomic nervous system is one method of promise. To evaluate the efficacy of PNS indices as a useful tool for developmental studies, we recorded awake cardiac activity in infant rhesus macaques (N=46, 23 males). Electrocardiograms allowed for the computation of heart rate (HR) and inter-beat-interval (IBI) (indexing SNS and PNS activity), and respiratory sinus arrhythmia (RSA) and root mean square of the successive differences (RMSSD) (indexing PNS activity). HR (M=251.68, SD=35.63) and IBI (M=246.86, SD=52.51) were correlated (r=-.95, p<.01). RMSSD (M=4.04, SD=2.67) and RSA (M=.70, SD=0.88), were also correlated (r=.91, p< .01). HR was correlated with both RMSSD (r=-.44, p<.01) and RSA (r=-.57, p<.01). Older infants had lower HRs (r=-.33, p<.05) and longer IBIs (r=.31, p<.05), but there was no relation between infant age and PNS activity. Values for all indices were physiologically appropriate. PNS activity has been proposed as an index of affective responsivity. Our methods allow for the collection of large-scale population data from infant nonhuman primates, which can be used in conjunction with behavioral data to examine the development of affective processes. The ability to deploy the same methods in humans will speed translational discovery.

POSTER C-57

VISUAL CORRELATES OF EMOTION REGULATION IN EXTERNALIZING PSYCHOPATHOLOGY

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Descriptors: emotion reappraisal, externalizing psychopathology, emotion dysregulation

Externalizing psychopathology (EXT) reflects several disorders characterized by impulsivity and disinhibition (e.g. antisociality, substance use disorders), as well as high levels of emotion dysregulation. Given that strong emotional states are often associated with increased behavioral problems among individuals with EXT, understanding the specific mechanisms associated with emotion regulation failures among these individuals may be particularly useful. Recent emotion regulation models suggest an integral role of perceptual and attentional brain regions in emotional control. In line with this view, previous work from our group suggests that EXT may be characterized by a lack of modulation within the visual system during emotion regulation, suggesting that perceptual systems may play a more crucial role in emotion regulation in EXT. To directly examine the role of visual modulation in emotion regulation among individuals with EXT, this study (n = 12) utilized a traditional emotion reappraisal paradigm with the addition of varying levels of visual noise. Broadly, previous results were replicated in low visual noise conditions (voxelwise p < .01). Additionally, high levels of visual noise was found to reduce activation in the lateral occipital cortex in the reappraisal task, as compared to low levels of visual noise. These results may help further clarify the neural mechanisms associated with emotion dysregulation in EXT.

POSTER C-58

THE ROLE OF SHAME AND IMPULSIVE RESPONSES TO EMOTION IN NONSUICIDAL SELF-INJURY AND SUICIDE ATTEMPTS

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Descriptors: suicide, nonsuicidal self-injury, shame

Past research has found that impulsivity, and specifically impulsivity in response to emotion, predicts suicide attempts. Shame is a key emotion elevated among individuals who have a history of nonsuicidal self-injury (NSSI) or suicide attempts. This study examined shame as a critically relevant emotion in interaction with impulsivity among those with suicidal and self-injury behaviors. We hypothesized that emotion-related impulsivity and shame, as main effects and in interaction, would be related to NSSI and suicidality. Participants with a history of NSSI (n = 119), suicide attempts (n = 86) and control participants (n = 42) completed self-report measures of emotion-related impulsivity, shame, and lifetime frequency of NSSI and suicide attempts. Hierarchical multiple regression analyses revealed that shame and emotion-related impulsivity predicted greater number of lifetime suicide attempts, when controlling for gender and childhood adversity. Higher shame predicted more days engaging in NSSI, but greater impulsivity did not predict NSSI above and beyond the effect of shame. In addition, participants with a history of NSSI reported how frequently they experience a list of emotions "right before" and, in parallel, "after" engaging in NSSI. Only external shame and sadness were reported significantly more frequently before NSSI than after NSSI, suggesting shame as a potential trigger for NSSI. Findings highlight the relevance of shame in NSSI and suicidality risk. Impulsivity was more powerfully tied to suicidality than to NSSI.

POSTER C-59

STRESSOR CONTROLLABILITY AND MOTIVATED ATTENTION TOWARD NEGATIVE AND NEUTRAL PICTURES: AN EVENT-RELATED POTENTIAL STUDY

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Descriptors: controllability, event-related potential, pictures

Initial experiences of control/uncontrollability may affect subsequent encounters with stressors. Here, 48 participants completed an S1-S2 task, in which they passively viewed a negative or neutral picture (S1); following S2 onset (same picture, different border), they could push a button to make the picture disappear. One group (n=25) experienced controllability (Control block 1, C1), followed by loss of control (No Control, NC) and then resumption of control (Control block 2, C2); another group (n=23) experienced uncontrollability (NC), followed by two control blocks (C1, C2). Event-related potential, the late positive potential (LPP) was used to index motivated attention to S1 and the post-imperative negative variation (PINV) was used to assess perceived changes in stimulus controllability following S2 onset. Group and block interacted, F(2,92)=4.34, p=.02 such that among participants who started with control, loss of control increased the LPP and this effect persisted even after restitution of control (i.e. NC M=-.10, SD=3.06>C1, M = -1.28, SD=3.36<C2, M=0.31, SD=3.74; ts>2.76, ps<.02). In addition, larger PINVs during the NC (M=.25, SD=4.06) compared to control (C1, M=3.24, SD=5.73; C2, M=2.29, SD=4.06; ts>4.11, ps<.001) conditions were observed for negative pictures only, F(2,92)=4.42, p=.02. Therefore, among those with a contingent response-outcome history, uncontrollable stress may lead to persistent increases in motivated picture processing (LPP) and changes in stimulus controllability may prompt response-contingency reappraisal only for stressors (PINV).

POSTER C-61

SOCIAL ANXIETY IS ASSOCIATED WITH DECREASED EMPATHIC ACCURACY FOR POSITIVE, BUT NOT NEGATIVE, STIMULI

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Descriptors: social anxiety, empathic accuracy, emotion

Individuals with social anxiety disorder often have cognitive biases that interfere with accurate perceptions of others' thoughts and intentions; yet, there is little research exploring the relation between social anxiety and empathic accuracy (EA). The present study examined the effect of social anxiety on EA, and the extent to which this association was moderated by the emotional valence of stimuli. Undergraduate students (N=269) completed measures including the Social Phobia Scale (SPS) and then participated in an EA task which contained both positive and negative videos. Multilevel modeling was used to account for repeated assessments within participants. There was a significant interaction between SPS and emotional valence of videos in predicting EA, b=-.0022, SE=.0006, p<.001. Simple slopes analyses showed that higher levels of social anxiety were associated with lower EA for positive stimuli (p<.001), but not negative stimuli, (p=.95). Results were maintained when statistically controlling for participants' neuroticism, extraversion, and dysphoria, as well as actors' expressivity in videos. Findings suggest that social anxiety may impair EA, but only for positive emotional stimuli. One potential explanation is that individuals with higher levels of social anxiety are more sensitive to potential negative evaluations, which may contribute to a heightened misperception of positive stimuli.

POSTER C-63

POSITIVE AND NEGATIVE APPRAISALS OF HEALTHY AND UNHEALTHY FOOD IS ASSOCIATED WITH ANTI-FAT ATTITUDES

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Descriptors: emotion regulation, anti-fat attitudes, food appraisals

How people regulate their emotions around food is thought to contribute to eating behaviors as well as weight and health attitudes and beliefs. The present study sought to investigate whether emotion regulation (ER) choice and implementation ability in response to healthy and unhealthy photos of food is associated with eating behaviors and attitudes towards overweight/obese individuals. A sample of young adults (N=86) completed an array of health and weight measures and an ER choice task in which they rated a series of healthy and unhealthy food photos and then chose to implement either positive reappraisal (PR) or negative reappraisal (NR) in response to each food photo. Task findings reveal that there were no differences in reappraisal choice between healthy and unhealthy foods, p>.1. However, participants rated healthy foods as more positive than unhealthy foods, t(85)=2.1, p<.05. In addition, correlations were conducted between initial emotion ratings and health and weight measures. Results revealed that higher positive ratings of unhealthy foods was associated with less fear of fat attitudes, r(86)=.27, p< .05. Finally, there were trend associations between higher positive ratings of healthy food and greater fear of fat attitudes, r(86)=.18, p< .1. These findings suggest fear of fat attitudes may be affecting primary emotional appraisals of healthy and unhealthy food.

POSTER C-64

DISSOCIATION LEADS TO IMPAIRED THREAT RESPONSIVITY IN SURVIVORS OF CHILDHOOD SEXUAL ABUSE

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Descriptors: dissociation, childhood sexual abuse, threat responsivity

Adults who experience acute trauma following a single incident, show inhibitory deficits related to symptoms of hypervigilance. However, the majority of studies relating inhibitory deficits to trauma are limited to samples with post-traumatic stress disorder (PTSD), and fail to include participants with a history of complex childhood trauma (CCT; e.g., childhood sexual abuse [CSA]), who frequently report dissociative symptoms in response to threat - conceptualized as blunted awareness for stressful stimuli. The present study's primary aim was to investigate how CCT effects inhibitory responses to threat, and whether dissociative symptoms moderate this association. Our sample included 47 participants who completed the peritraumatic dissociative experiences questionnaire (PDEQ) and the childhood trauma questionnaire (CTQ), as well as an emotional go/no-go task to measure inhibition using happy, angry, sad, fearful, and neutral faces. Results indicated a significant interaction effect between childhood sexual abuse (CSA) and dissociation on threat responses, ß = .47, t(43) = 2.81, p = .007. Simple effects were examined at the mean of PDEQ scores, as well as one standard deviation above and below the mean. Greater scores on the PDEQ significantly moderated the relationship between CSA and false alarms (FA), ß = .40, t = 2.27, p = .028, 95% CI [.044, .766], such that participants who experienced greater levels of CSA had more FAs. Our results suggest that when threatening experiences are not limited to a single incident, dissociation leads to impaired responsivity to threat.

POSTER C-65

REAPPRAISAL DECREASES NEGATIVE INTERPRETATIONS OF AMBIGUOUS STIMULI

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Descriptors: emotion regulation, valence bias, physiology

While cognitive reappraisal has been shown to decrease subjective negativity ratings and corrugator activity (facial EMG) in response to clearly negative stimuli, it is not clear how reappraisal changes responses to ambiguous stimuli that could be interpreted as positive or negative. We predicted that participants would rate ambiguity as less negative after training in reappraisal. We recorded corrugator activity and electrodermal activity (EDA) while participants (N=64) rated positive, negative, and ambiguous stimuli (faces and scenes) as positive or negative. A week later, participants returned for a training in reappraisal, in which they were instructed to either maintain or reappraise their initial reactions to negative scenes, and then rate faces and scenes again. We recorded corrugator and EDA in this session as well. Participants rated ambiguous stimuli less negatively after the reappraisal task (p<.001). Further, some individuals showed an increase in EDA following reappraisal (worse regulators), while others showed a decrease (better regulators) more consistent with down-regulation. The better regulators showed more positive ratings at baseline (Session 1) than worse regulators, suggesting they are more likely to override negative interpretations of ambiguity. Finally, better regulators reported more habitual use of reappraisal on the Emotion Regulation Questionnaire (p=.055). We conclude that individuals that are more successful emotion regulators experience behavioral and physiological changes that support greater positivity in response to ambiguity.

POSTER C-66

INTERPERSONAL EMOTION REGULATION: SUPPORT GOALS SHAPE EMOTIONAL EXPRESSIONS

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Descriptors: interpersonal emotion regulation, social sharing, emotional expression

More often than not, emotion regulation takes place at an interpersonal level. Extant research has investigated the prevalence and effectiveness of social sharing. So far, however, few studies have looked into the process of sharing itself. What kinds of needs and goals do sharers have and how do these affect their sharing behavior? Here we present a study in which 187 participants shared a negative emotional experience in front of a video camera, imagining that they were talking to a friend via Skype. Our aim was to test how support goals affect participants' verbal expressions of emotion. We manipulated participants' support goals by convincing them of the effectiveness of socio-affective support (i.e. validation, empathy), cognitive support (i.e. reappraisal), or, in the control condition, of mere social sharing, and then explicitly instructed them to pursue the respective type of support. As predicted, participants seeking socio-affective support expressed relatively more emotions compared to those seeking cognitive support (p = .028), whereas those seeking cognitive support shared more appraisals regarding the emotional event (p = .006). Participants with a cognitive support goal also made more explicit requests to learn about the other person's view on the situation compared to those in the other conditions (all ps < .002). In conclusion, this study shows that people express themselves differently depending on the type of support that they seek. Future research should test whether this may in fact help them in eliciting the desired support from their sharing partner.

POSTER C-67

ADULTS PERCEIVE CHILDREN'S EMOTION THROUGH A RACIALIZED LENS

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Descriptors: stereotyping/prejudice, emotion

Accuracy of emotion in Black and White faces have been thought to carry an in-group advantage, along with higher accuracy for the majority group (Elfenbein & Ambady, 2002). However, very few studies have examined skill in recognizing children's emotions. To study accuracy for emotion expression in children's faces, we measured 178 preservice teachers' judgments in an emotion recognition task capturing the dynamic facial expressions of 72 children (½ female, ½ Black) expressing one of six emotions. MLM analyses for emotion recognition accuracy revealed no difference over all the emotions, however, an interesting pattern of difference for various emotions emerged by child race. Specifically, participants judged Black children's disgust and sadness more accurately than the same emotions in White children, but judged Black children's happiness and fear less accurately than the same emotions in White children, with interactions between race and gender for anger and surprise. Thus, with a larger sample of children expressing emotions and having created more dynamic measurements, accuracy differences in understanding what children are feeling reveal a nuanced but racialized pattern. This pattern suggests greater vigilance for Black children's negative emotions compared to White children's emotions, and the reverse for positive or neutral emotions. We discuss these findings further in consideration of the literature on anger bias and assessments of children's misbehaviors.

POSTER C-68

MARITAL EXPRESSIONS OF AMUSEMENT, COMPASSION, GRATITUDE, AND PRIDE CAPTURED AT HOME

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Descriptors: positive emotion, close relationships, naturalistic data

Expressions of positive emotion between spouses are associated with happier marriages (Cartensen, Gottman & Levenson, 1995), which are in turn associated with better individual health and longevity (Koball, Moiduddin, Henderson, Goesling, & Besculides, 2010) and greater psychological well-being (Gove, Hughes, & Style, 1983). Yet, little is known about how specific positive emotions are expressed in couples' everyday lives. In this naturalistic, observational study, we examined how often amusement, compassion, gratitude and pride are verbally expressed in the home. We developed a novel approach to systematically code moments of positive emotions (N = 3772) in transcripts of a unique video archive of 32 families in their homes and communities during one weekday. Families varied in how often they expressed positive emotion (0.6 – 15 times per hour). In everyday interactions in the home, wives expressed positive emotions significantly more often than husbands (d = .53) and this difference was primarily driven by the prosocial emotions – compassion and gratitude. However, in conversations between husbands and wives, spouses did not differ in the rates at which they expressed compassion, gratitude and pride toward one another. Marital expressions of gratitude, but not compassion or pride, were also associated with children's expressions of compassion (r = .64, r = .77), gratitude (r = .52, r = .73), and pride (r = .40, r = .46), suggesting spouses' positive interactions may influence children's emotional behavior and that specific emotions may have unique impacts in the family.

POSTER C-69

DOES RUMINATION ALWAYS PREDICT INCREASES IN DEPRESSION? THE MODERATING EFFECT OF EMOTION DIFFERENTIATION

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Descriptors: emotion differentiation, depression, rumination

Consistent evidence shows that rumination predicts increases in depressive symptoms and onset of depressive disorders. We hypothesize that emotional processes that may interrupt rumination protect people from prospective increases in depression. Thus, in a prospective longitudinal study, we examined how emotion differentiation (ED)—the ability to identify and label emotional states in a specific manner—moderates the association between rumination and increases in depressive symptoms. Given the psychological benefits of high negative ED (NED), we expect that rumination would only predict increases in depression when negative emotions are less, not more, differentiated. We also explored whether positive ED (PED) moderates the association between rumination and depression. Over one week of experience sampling (ESM), 79 adults (Mean age=39) repeatedly reported negative and positive emotion—from which we computed interclass correlation coefficients to represent NED and PED. Participants completed ESM and self-report measures of rumination and depression at baseline and a depression measure six months later. Consistent with cross-sectional research, baseline depression was associated positively with rumination (r=.49), and negatively with NED (r=-.37) and PED (r=-.21). As predicted, rumination predicted significant increases in depression when negative emotions were less, not more, differentiated, beta=.42; the same pattern characterized PED findings, beta=.26. These results highlight an adaptive function of ED and are the first to show its longitudinal psychological benefits.

POSTER C-70

WHICH FEAR? DECODING THE NEURAL PATTERNS INVOLVED IN CONTEXTUAL FEARFUL EXPRESSIONS IN YOUTHS WITH CALLOUS-UNEMOTIONAL TRAITS

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Descriptors: fear, MVPA, callous-unemotional

Individuals with high levels of callous-unemotional (CU) traits are characterized by deficits in recognizing fearful faces. While fearful faces signal that the expresser has identified a threat, they are ambiguous with respect to the nature of that threat. In the present fMRI paradigm, 21 adolescents (12 CU; 9 healthy controls, HC; mean age=14.2) viewed fearful facial expressions accompanied by a written cue specifying 1 of 3 possible contexts (i.e., the pictured person was "afraid for themselves," "afraid for you" or "afraid of you"). Average accuracies for discriminating between each context based on neural response patterns were computed using a whole-brain searchlight approach with leave-one-run-out cross-validation. To compare decoding accuracy, a repeated-measures analysis of variance was conducted using a 2 (group) x 3 (context comparison) factorial design. A main effect of group revealed greater accuracy for HCs in left superior temporal sulcus (STS), $F_{(1,19)}=49.7$, right STS, $F_{(1,19)}=27.5$, and right rostral prefrontal cortex, $F_{(1,19)}=26.3$, p<.001. Context-by-group interaction effect revealed better accuracy in the right superior temporal gyrus for HCs, $F_{(1,19)}=11.1$, p<.001. Main effect of context comparison was non-significant. This study reveals how machine learning can effectively dissociate among neural responses implicated in socioemotional processing between HC and CU youths viewing disambiguated fearful expressions. Furthermore, these results provide a preliminary understanding of the neural representations associated with divergent interpretations of fear.

POSTER C-71

THE NEURAL BASES OF THE INFLUENCE OF STRATEGY AND INTENSITY ON EMOTION REGULATION

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Descriptors: fMRI, emotion regulation strategies, emotional load

When confronted with unwanted, negative emotions, individuals often choose one of several strategies for regulating their responses (Sheppes et al., 2012). Previous studies have shown that the choice of emotion regulation (ER) strategy varies as a function of emotion intensity (Sheppes et al., 2011), but how emotional load influences the implementation of an ER strategy is still largely unexplored. To address this gap in the literature, this study attempts to systematically investigate the differences between the behavioral and neural correlates of three distinct emotion regulation strategies, and how the efficacy of these strategies varies as a function of the emotional load (intensity). Thirty nonclinical participants (17 females, 13 males) completed an ER task comprised of neutral viewing, reacting to negative stimuli, cognitive reappraisal, attentional deployment (distraction), and self-distancing (separation) conditions. Brain data was simultaneously collected in a GE MRI scanner, and preliminary group-level analyses indicate that there are differences in behavioral responses and brain activity when viewing negative stimuli as compared to neutral stimuli (t = 52.434, df = 2036.9, p-value < 2.2e-16). There are also behavioral and neural differences when applying an ER strategy. However, there were no significant behavioral or neural differences between the ER strategies when collapsing across intensity. Future analyses will explore the specific differences between each ER strategy at the two intensity levels, and whether there are any strategy-intensity interactions.

POSTER C-72

'UNTRANSLATABLE' EMOTION WORDS ARE DYNAMICALLY INTEGRATED INTO THE CONCEPTUAL SYSTEM

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Descriptors: words, culture, translation

Emotion words communicate culturally-held understandings about experiences, values, and goals. 'Untranslatable' emotion words are a popular topic for online listicles, blogs, and quizzes. Using 30 emotion words from a range of languages that have been deemed untranslatable into English, we asked participants (N = 97) to perform 5 tasks on a subset of 10 terms: (1) generate a scenario in which they felt the given emotion; (2) rate the emotion on valence and arousal; (3) localize where the emotion would be felt in the body; (4) associate the emotion with a color; (5) complete a spatial arrangement task (SpAM) in which they arranged the other-culture words and 20 English words by semantic similarity. Scenarios were analyzed for affective, social, and cognitive language using Linguistic Inquiry and Word Count (LIWC). Participants produced elaborate simulations of the emotions, anchored by details from previous experience. Multidimensional scaling analyses of SpAM task data show that new words are rapidly situated within the dimensional framework of valence and arousal, suggesting participants were able to meaningfully compare novel and existing concepts. Further, valence was highly reliable across both direct (scales) and indirect (LIWC, SpAM) measures (.771 < r < .938, all p's < .001). These results provide evidence that language users leverage existing knowledge to dynamically integrate new words into the conceptual system. Studies comparing features sets of other-culture words and their closest English equivalents to determine translational equivalency will also be discussed.

POSTER C-73

INFLUENCE OF DISGUST AND FEAR ON LONG-TERM ENCODING AND RECOGNITION OF VERBAL ASSOCIATIONS

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Descriptors: long-term memory, unitization, affective word pairs

A critical feature of human memory is the ability to combine different items into single mental representations and form novel associations via unitization. We often generate associations that contain emotional content and thus have an adaptive meaning. It was indicated that emotional associations can be achieved faster are less likely to be retained in memory over long-term delays. However, previous research demonstrated the following limitations: using typically visual material, characterizing emotion only as negative or neutral, and testing memory not later than after 30 min. The aim of this fMRI study was to investigate how specific basic emotions (disgust, fear) influence long-term memory encoding and recognition of verbal associations. Behaviorally, we found that emotional word pairs were remembered better than neutral word pairs and disgust was remembered better than fear (this effect was not explained by the associated level of arousal). At the neuronal level, during encoding we observed increased activation of prefrontal regions and amygdala specific to disgust, and the activation of occipital regions and medial temporal lobe specific to fear (even when we regressed out the effects of arousal). Similar regions were activated specifically to disgust and fear during recognition. Functional connectivity analysis revealed an increase between the nodes of salience network and default mode network for disgust when compared to fear. These results suggest that differential influence of emotions on memory can be observed not only behaviorally, but also neurally.

POSTER C-74

EAST ASIAN AND EUROPEAN AMERICAN DIFFERENCE IN AFFECTIVE RESPONSE TO ACUTE PSYCHOSOCIAL STRESS

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Descriptors: stress, culture, dialecticism

Emotional complexity (EC), or the co-occurrence of positive and negative emotions, is linked to resilience and lower stress. Some studies suggest there are cultural differences in emotional complexity, but the findings are mixed. The current study examined EC in response to an acute stressor, and tested for differences between East Asian (EA) and European American female undergraduate students (n = 33, 67% EA). Participants completed the 10-item International short form Positive and Negative Affect Schedule before and after undergoing a laboratory stressor. Positive and negative affect following stress was highly correlated among European Americans (r = -.69, p <.001), but not East Asians (p = .5), suggesting greater co-occurrence and EC in the East Asian group. Furthermore, while both EA and European Americans had significant increases in negative emotion after the stressor, only European Americans had a significant decrease in positive affect, t(10) = 2.6, p = .03. It is possible that the maintenance of positive emotion in EA participants, even in the presence of increased negative emotion, may be attributable to higher levels of dialectical thinking, or tolerance for contradictory emotions, in EA culture. Future work will further examine the role that these cultural differences in EC play in stress recovery.

POSTER C-75

INVESTIGATING THE RESTING STATE FUNCTIONAL CONNECTIVITY OF THE HYPOTHALAMUS USING 7T FMRI

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Descriptors: connectivity, hypothalamus, high-resolution MRI

The hypothalamus contributes to many aspects of affect, emotion, and interoception, yet to date there has been very little research investigating hypothalamic resting state functional connectivity. One issue hampering further study is the high spatial resolution required to adequately distinguish and isolate the hypothalamus from other nearby subcortical structures. To address this gap in the literature, we used high-resolution functional magnetic resonance imaging (fMRI) to examine the intrinsic connectivity of the hypothalamus during resting state (n = 11). Using unsmoothed 1mm voxels, we were able to identify the hypothalamus directly from the fMRI data and generate seed-based regions of interest for connectivity analysis at the single-subject level. We found connectivity with nuclei in midbrain areas including the periaqueductal gray matter, as well as clusters in the anterior lobe of the cerebellum, and the midline including cingulate cortex. These findings are in contrast with previous research, which have suggested resting state hypothalamic connectivity with cingulate gyrus and brainstem regions only during sleep cycles. The results lay the groundwork for further investigation of high-resolution resting state data and the role of the hypothalamus in intrinsic connectivity networks.

POSTER C-76

NEGATIVE AFFECTIVE PRIMING INFLUENCES NEURAL ACTIVITY IN SCHIZOPHRENIA

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Descriptors: schizophrenia, social cognition, neural activity

Being successful in social interactions involves individuals being able to make accurate judgements using social cues and using internal or external affective information on those judgments. Past research suggest that individuals with schizophrenia do not accurately process social stimuli and this leads to impaired social functioning. However, there is little understanding in how the neural basis plays a role in social functioning. This study investigates whether the lateral prefrontal cortex (LPFC) is associated with social judgments in individuals with schizophrenia. During a functional MRI (fMRI), twenty-three patients with schizophrenia and thirty-five healthy control participants rated the trustworthiness of faces when showed neutral, negative, or positive affective primes. Preliminary behavioral data suggest that those with schizophrenia had a more pronounced rating of less untrustworthy when the face was shown with a negative prime than those in the control group. Looking at the neural mechanism of this phenomenon will contribute to the understanding of social impairments in individuals with schizophrenia.

POSTER C-78

SIMULATING EMOTION PERCEPTION: AN INTERACTIVE ACTIVATION MODEL

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Descriptors: interactive activation, neural networks, computer simulation

Increasing evidence points to malleability of emotion perception: emotions read out from facial configurations are not decoded independently of context. Rather, contextual variables influence emotion perception (Aviezer et al., 2008; Barrett & Kensinger, 2010). Making use of the informational processing principles from the parallel distributed processing (PDP) framework (Rumelhart, Hinton, & McClelland, 1986), principles that have been applied primarily to the modelling of phenomena in the realm cognitive psychology, we developed a model of emotion perception that relies on cognizable units, such as facial expression type and affective context. These units reciprocally interact with instances of emotion in a hidden layer, yielding patterns of activation that closely correspond to empirical data, for example, to that of Aviezer and colleagues (2008). Such an interactive activation model can be applied to a variety of domains concerning emotion and contextual influences, and has the potential to adjudicate the debate between opposing perspectives such as the structural hypothesis of emotion perception and the conceptual-act model of emotion.

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