University of North Dakota Psychology Department

Presents

2017 Northern Lights Psychology Conference

Friday, October 6, 2017
8:00am-5:00pm
UND Memorial Union
2017 Northern Lights Psychology
Conference Schedule

All events will be held on the 2nd floor of the Memorial Union on the campus of the University of North Dakota. Please sign-in at the registration table.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 8:30 a.m.</td>
<td>Registration and Breakfast</td>
<td>Fireside Lounge</td>
</tr>
<tr>
<td>8:30 – 9:45 a.m.</td>
<td>Paper Session I</td>
<td>Lecture Bowl</td>
</tr>
<tr>
<td>9:45 – 10:00 a.m.</td>
<td>Networking Break</td>
<td>Fireside Lounge</td>
</tr>
<tr>
<td>10:00 – 11:30 a.m.</td>
<td>Panel Session:</td>
<td>Lecture Bowl</td>
</tr>
<tr>
<td></td>
<td>NORTH DAKOTA’S OPIOID ADDICTION CRISIS</td>
<td></td>
</tr>
<tr>
<td>11:30 – 12:45 p.m.</td>
<td>Lunch on Your Own</td>
<td></td>
</tr>
<tr>
<td>12:45 – 2:00 p.m.</td>
<td>Paper Session II</td>
<td>Lecture Bowl</td>
</tr>
<tr>
<td>2:00 – 3:00</td>
<td>Poster Session</td>
<td>River Valley Room</td>
</tr>
<tr>
<td>3:00 – 3:15 p.m.</td>
<td>Networking Break</td>
<td>Fireside Lounge</td>
</tr>
<tr>
<td>3:15 – 3:30 p.m.</td>
<td>Student Awards</td>
<td>Lecture Bowl</td>
</tr>
<tr>
<td>3:30 – 5:00 p.m.</td>
<td>Keynote Address:</td>
<td>Lecture Bowl</td>
</tr>
<tr>
<td></td>
<td>Dr. Santosh Mathan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCALING UP COGNITIVE EFFICACY</td>
<td></td>
</tr>
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<td></td>
<td>WITH OPERATIONAL NEUROSCIENCE</td>
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Perceptions of Dress Code Compliance
Kristen Leighton & Heather Terrell (University of North Dakota)
Recent media coverage of middle and high school dress code controversies has called into question the fairness of such regulations on students’ clothing. The current study investigated gender differences in reactions to dress code violations and how reactions varied based on the race of the student who violated the dress code. The current study also explored how individual differences in hostile sexism, benevolent sexism, and social dominance orientation influenced judgments about dress code violations. Judgments about dress code violations were not found to vary based on the gender of the participant or race of the target. Social dominance orientation, however, emerged as a significant predictor of severity of the rating of the dress code violation.

Tethered to Texting: Emotional Attachment to Cell Phones and Text-Message Dependence
Alex Holte & Ric Ferraro (University of North Dakota)
Due to the ubiquity of cell phones, a myriad of studies has been conducted relating to human interaction with the devices. Prior research has not addressed the potential for individuals to develop emotional bonds to their cell phone, as indicated by using emotionally strong words commonly reserved for close relationships. In this study, we had 175 students from a Midwestern university in the United States complete the Self-Perception of Text-Message Dependence Scale (SPTMDS) and the Emotional Attachment Scale. All four subscales of the SPTMDS (emotional reaction, excessive use, relationship maintenance, and psychological/behavioral symptoms) were significantly and positively correlated with scores obtained from the Emotional Attachment Scale. The dependence of texting appears to relate to how an individual feel towards their cell phone, and future studies should expand from the framework of our pilot study to better understand the ramifications.
9:10-9:25am
**Self-focused Attention and Executive Functioning in Dieters: Examining Cognitive Load**
Kelly Cuccolo, Rachel Sjostrand, & Ric Ferraro (University of North Dakota)

Temptations that might derail dieters from their weight loss goals are abundant in the environment. As such, dieters need to constantly engage in self-monitoring to ensure weight loss success. This may lead to preoccupying thoughts surrounding weight loss, as thought suppression often results in a rebound effect. This preoccupation may account for cognitive deficits observed in dieters. This study examined the impact of self-focused attention, and preoccupation on disordered eating symptomology, and executive function in a sample of undergraduate students (n=33). Statistically significant correlations were observed between disordered eating symptomology and preoccupation, $r = .73$, $p<.001$, and self-absorption, $r = .69$, $p<.01$. Additionally, dieters recalled significantly fewer digits on the digit span task when controlling for self-absorption compared to non-dieters $F(1,27)=4.94$, $p=.034$. It is possible that self-focused attention may detract from attentional resources necessary to complete certain cognitive tasks through increasing cognitive load. Implications for dieting culture and cognitive load theories are discussed.

9:30-9:45am
**Are Decision Rules Responsible for Producing Peak Shift?**
Anthony Garnett & Adam Derenne (University of North Dakota)

In studies of peak shift, participants are trained to respond to one stimulus (S+) and to avoid responding to another stimulus (S-). Participants are then tested on their ability to recognize S+ from among other, similar stimuli. During the test, participants’ responses often peak at a stimulus other than S+, and farther away from S-. We considered whether decision rules, presented as instructions-only, might be responsible for producing this phenomenon. Half of the participants (UND undergraduates) underwent a traditional peak shift procedure, while the other half received instructions instead of training. Peak shift was found in both cases, which supports the importance of decision rules to the effect. Participants were then tested again with instructions to either focus on the absolute features of the stimuli or on the relative differences among the stimuli. These instructions also altered participants’ selections, with the relational instructions seeming to exaggerate the peak shift effect.

9:45-10:00am
**Networking Break**
Fireside Lounge
Panel Session
10:00-11:30am
UND Memorial Union, Lecture Bowl

Increasing Awareness of North Dakota’s Opioid Addiction Crisis from Law Enforcement, Public Health, and Health Policy Perspectives
S/A Steve Gilpin (Criminal Agent III, North Dakota Bureau of Criminal Investigations)
Dr. Mary Sens (Professor & Chair, Department of Pathology, School of Medicine & Health Sciences, University of North Dakota)
Officer Tami Lieberg (Chief Probation Officer, Tri-County Community Corrections)

11:30-12:45 pm
Lunch on Own

Paper Session II
12:45-2:00pm
UND Memorial Union, Lecture Bowl

12:45-1:00pm
An Investigation of the Latent Structure of Eating Disorder Psychopathology and Non-Suicidal Self-Injury (NSSI)
1Erica Goodman & 2Kyle De Young (1University of North Dakota; 2University of Wyoming)

Non-suicidal self-injury (NSSI; deliberate harm to the self) and eating disorders (EDs) frequently co-occur, and both place an individual at increased risk for suicide. Thus, the current study aimed to investigate how the relationship between NSSI and ED behaviors is best understood, based on the intent of the behavior (e.g., “to hurt myself”) or the function (e.g., “I became less angry”). Participants were 493 undergraduate students (80% female; 90% white) who completed an online survey regarding lifetime NSSI and ED behaviors. Structural Equation Modeling (SEM) was used to test whether a model based on function of NSSI and ED psychopathology would fit data better than a model based on intent. Both the final intent and function models yielded an excellent fit; the models were not statistically different from one another, $\Delta \chi^2(3)=5.90, p=.12$. The intent model accounted for 95% of the variance in ED psychopathology and 62% in NSSI, while the function model accounted for 87% of the variance in ED psychopathology and 51% in NSSI. In the intent model, internal emotion regulation was the strongest predictor of NSSI ($\beta=.79$), and in the function model, internal emotion regulation was the strongest predictor of ED psychopathology ($\beta=.72$). In both models, ED and NSSI psychopathology were positively associated with one another. Findings are consistent with prior literature in terms of emotion regulation being a function of both NSSI and ED psychopathology.
1:05-1:20pm
**Beauty before Intellect: Physical Attraction is Crucial to Desirability in Online Dating**

Wendy Fisher (University of North Dakota)

In modern American society, women are receiving more education than men. However, due to traditional gender roles and beliefs, men and women may differ in the romantic desirability they attribute to a highly competent or intelligent potential partner. Additionally, the increasing use of online dating has significantly changed how individuals meet and interact with potential partners; allowing users to be more selective in whom they choose to date. This study examined the impact of physical attractiveness, intelligence, and their interaction on romantic desirability using an online dating scenario. Participants (368, 50% female), evaluated the romantic desirability of one of the profiles and completed the Ambivalent Sexism Inventory. The results revealed physical attraction to be the most important factor determining romantic desirability; perceived intelligence and gender roles beliefs had little impact on participants’ ratings. Results indicate women’s and men’s partner preferences may be converging as social roles also converge.

1:25-1:40pm
**EEG Workload and Engagement in Differentially Experienced Air Traffic Control Students during a Dynamic Approach-Control Simulation**

Kyle Bernhardt, Dmitri Poltavski, Tom Petros, Ric Ferraro, Terra Jorgenson, Craig Carlson, & Paul Drechsel (University of North Dakota)

The current study examined the validity of electroencephalography (EEG) derived cognitive state metrics of cognitive workload and engagement in differentially experienced air traffic control (ATC) students during a high-fidelity, variable workload approach-control scenario. EEG and pupil diameter recordings were collected from 47 ATC students (27 with more and 20 with less experience) during a five-phase approach-control scenario. Scenario workload was manipulated by increasing the number of aircraft released per phase and the presence or absence of uncontrolled departures/arrivals. Multilevel linear models revealed that the EEG workload and pupil diameter varied across scenario phases, but did not differentiate experience groups. EEG engagement did not vary across scenario phases but did differentiate experience groups, with less experienced controllers demonstrating more engagement than more experienced controllers. Results have implications for monitoring operator training progress.

1:45-2:00pm
**What do Facets of Trait Mindfulness Contribute to Difficulties in Executive Functioning?**

Sheila Hanson, Taylor Baumler, & Tom Petros (University of North Dakota)

Research has studied the association between both trait and state mindfulness on executive functioning (EF). The current study examines the relationship between the five facets of mindfulness (observing, describing, acting with awareness, non-judging, and non-reacting) and the five domains of EF (self-management to time, self-motivation, self-restraint, and self-organization/problem solving, and self-regulation of emotion). College students (N = 239) completed self-reports of trait mindfulness and EF. Overall, trait mindfulness explained a small amount variability in all five domains of EF with final regression models ranging from $R^2 = .07$
to .19. In regression models incorporating the facets of mindfulness, variability in the domains of executive functioning explained by various facets of trait mindfulness ranged from $R^2 = .18$ to $R^2 = .36$. The results of this study suggest that future research and mindfulness interventions may be tailored to both better understand and effect change in various domains of EF.

Poster Session
2:00-3:00pm
UN Memorial Union, River Valley Room

1) Sibling Hostility and Lifetime Aggression
Ratzak, A., Ballantyne, S., Knutson, S., Pogalz, C., Breen, C., Russell, T., & King, A.
(University of North Dakota)
Abstract: Sibling verbal and physical abuse has been underrepresented in childhood maltreatment research as a potential contributor to lifetime aggression. This study investigated associations between sibling hostility (physical abuse, threats of violence, heated verbal conflict) and externalized symptom indicators after control for variance attributable to physical and sexual abuse, exposure to domestic violence, and peer bullying. Over 20% of the respondents from this sample ($N = 1,331$) recalled high levels of sibling hostility during upbringing. The frequency of these acts served as a significant predictor in regression models for all of the criterion measures among the women. Relationships between sibling hostility and these externalized symptom indicators were more limited among the men. Acts of sibling hostility as infrequent as once a year were linked to conduct disturbance, reactive aggression, physical aggression, and trait hostility. Sibling hostility warrants systematic attention in the childhood maltreatment literature.

2) Spirituality and Religiosity in University Students
Clark, T. (Valley City State University)
Abstract: The terms spirituality and religiosity are often used—incorrectly—interchangeably. The question in the original pilot study was, "Will students experience an identity shift after being given the standard definitions?" The participants used their own definition to rate identity for both religiosity and spirituality, then rated each again after definitions were provided. Although an identity shift was seen in spirituality, none was shown in religiosity. We were confused when participants reported low religious attendance while still identifying as religious, even though the standard definition for religiosity is based on attendance. In the present study, it is hoped to better understand this trend. Additionally, it is hoped to expand data on spiritual and religious identity in university students.

3) Sexual Distress and Personality Maladjustment Correlates of Asphyxiophilia
Pocknell, V., & King, A. (University of North Dakota)
Abstract: Asphyxiophilia is sexual arousal from the restriction of air flow occurring as a manifestation of sadomasochistic disturbance or acquired from other unclear etiology. This analysis examined respondents with and without ($n = 162$) asphyxiophilic sexual interests. A total of 8.8% of the sample reported that choking served as a specific focus for his or her sexual fantasies. This group was disproportionately represented by respondents who were less religious ($d = .41$), sexually abused prior to age 13 ($RR = 2.44$), exposed to pornography at a younger age
(d = .43), and hypersexual (d = .80) in their erotic desires. Asphyxiophilia group members showed higher levels of maladjustment on the Sexual Addiction Screening Test-Revised and DSM-5 Personality Inventory. Additional research is necessary to assess the validity of the DSM-5 distinction between sexual interests versus disorders based on the syntonic or dystonic nature of paraphilic acts such as asphyxiophilia to the individual.

4) An Exploration of Feminist Identity and Body Image Self-Esteem
Ferdous, N., Cuccolo, K., & Fisher, W. (University of North Dakota)

Abstract: Dieting, disordered eating, and body image concerns are a mainstream issue in American culture. Recent research has shown associations between poor body image and dieting frequency. Additionally, recent research demonstrates correlations between dieting and depression. Therefore, an increasingly important area of research is to identify factors that protect individuals from poor body image, and hence, dieting. Feminism may act as a protective factor against body dissatisfaction because of the features of feminism that focus on empowerment, self-efficacy, and criticisms of cultural standards. This study sought to evaluate the relationship between feminism and body dissatisfaction. The Feminist Identity Development Scale was used to examine body self-esteem at different stages of feminist ideal endorsement. Results suggest that feminist identity development negatively predicts body image self-esteem. Implications for societal views of feminism and body image are discussed.

5) Cognitive Boosters Facilitate the Efficacy of a Motivation-Enhancing Treatment in a Two-Semester Online College Course
Kempe, T., Perry, R., Parker, P., Chipperfield, J., Hladkyj, S., & Lebo-McGowan, J. (University of Manitoba)

Abstract: Attributing academic performance to uncontrollable causes is maladaptive. Motivation treatments such as attributional retraining (AR) redress maladaptive explanatory thinking and contribute to improved academic performance. The goal of this study was to determine if post-treatment cognitive boosters enhance standard AR efficacy. The first independent variable was treatment condition (traditional AR / booster-enhanced AR). The second independent variable was participant level of perceived academic control (low/high PAC). The third independent variable was participant native language (native English speakers/non-native English speakers). The dependent variable was course test performance in a two semester online college course. Results indicated that booster-enhanced AR significantly improved course performance for low PAC students as well as non-native English speaking students. However, a significant three way interaction (condition X PAC X native language) was not found.

6) Perceived News Believability and Source Credibility
Rieder, A., Cuccolo, K., & Ferraro, R. (University of North Dakota)

Abstract: An increasing number of millennials are becoming active in politics, who tend to use social media as their source of news. Online sources often use flashy headlines to catch the reader’s attention. Since these headlines can be used to spread ideas quickly, they are often used in favor of certain political parties. This brings the issue of how political affiliation affects how a person perceives a news story as believable and the source as credible. This can also affect how agreeable they view the story to be. Using a modified version of the “Asian Disease Problem” by Tversky and Kahneman (1981) we investigated framing effects based on political affiliation. We
also looked at perceived credibility and believability by taking a singular news story and labeling it with either a democratic or republican news source. We hypothesize that a person’s political affiliation plays a role in how they perceive a story’s credibility, believability, and agreeability.

7) Differentiating Corporal Punishment from Physical Abuse in the Prediction of Lifetime Aggression
Ballantyne, S., Ratzak, A., Knutson, S., Pogalz, C., Breen, C., Russell, T., & King, A. (University of North Dakota)

Abstract: Associations between childhood corporal punishment and lifetime aggression were examined after controlling for variance associated with co-occurring maltreatment (physical abuse, sexual abuse, sibling abuse, peer bullying, and exposure to domestic violence). Respondents (N = 1,136) provided retrospective self-reports of their histories of corporal punishment, childhood maltreatment, and lifetime aggression indicators. Corporal punishment links to the criterion indices were hypothesized: 1) to be equal in strength to the maltreatment predictors; 2) to account for significant variance in regression model predictions; 3) to predict heightened aggression even when experienced infrequently; and 4) to be significant even in the absence of past physical abuse. These hypotheses were all supported. Corporal punishment in this sample seemed to serve as a precondition (RR = 44.27) for parental physical abuse. While cohorts of corporal punishment with and without CPA were easily assembled, physical abuse in the absence of corporal punishment rarely occurred in this college sample.

8) Self-focused Attention in Female Dieters
Sjostrand, R., Cuccolo K., & Ferraro, R. (University of North Dakota)

Abstract: In the past, it has been found that dieters have more intrusive thoughts than non-dieters and the effects become apparent on memory tasks. When dieters are focused on self-restraint, one’s performance on working memory tasks is lower. This study examined the differences in attention between college females self-reported as dieters or non-dieters. Female participants answered questionnaires assessing eating behaviors, intrusive thoughts, and self-focused attention, and performed a cognitive test on working memory (n=33). Dieters scored significantly higher on preoccupation and self-absorption than non-dieters. Dieters recalled less items in working memory tasks compared to non-dieters, but no other significant differences were observed. The findings have useful implications, despite null results, since there is such mixed literature if dieting affects working memory. Further research may extend to examining the different types of dieters, such as restraint groups, weight loss groups, and groups that are dieting to maintain health.

9) Benevolent Sexism and Protective Justifications Replication
Patry, A., Baumler, T., Mattes, G., Storey, T., & Terrell, H. (University of North Dakota)

Abstract: The present study was designed to replicate the work of Moya and Glick (2007) on attitudes towards limitations justified with benevolent sexism. A sample of participants was recruited online to complete a survey. Participants completed the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 2001) and then read one of two scenarios—either a scenario of a suggested work-related limitation that was justified with reasons grounded in benevolent sexism or a scenario of the suggested limitation with no justification. Participants completed six questions about the degree to which they supported the limitations. We hypothesized that participants
would be more willing to accept limitations when justified with reasons grounded in benevolent sexism and that this would be more pronounced for participants high in sexism as a trait variable. There was no significant interaction between scores on the ASI and reactions to types of justification, and there was no significant main effect for type of justification. There was, however, a significant main effect for a participant’s score on the ASI, suggesting participants higher in sexism were more accepting of limitations justified with benevolent sexism.

10) The Effects of Cognitive Fatigue Type on Concentration, Workload, and Dual-Task Performance

Abstract: The current study evaluated the effects of different cognitive fatigue manipulations on concentration, workload, and task performance. Participants (N=32) were assigned to one of three fatigue conditions during a 50-min generalized flight simulator: active (constant psychomotor adjustment with monitoring), passive (monitoring with low event rate), and control (monitoring with high event rate). Measures of concentration and alertness were completed pre/post simulation, with workload rated throughout the simulation. Regardless of fatigue condition, participants reported being less alert and losing concentration after the simulation. Subjective workload varied as a function of fatigue condition, with the active group reporting elevated workload during fatigue induction compared to the passive and control groups. Additionally, those in the control group demonstrated worse tracking performance than the active and passive groups during post-fatigue induction, dual-task performance evaluations. Concentration and cognitive workload assessment during prolonged operations is crucial for proper system design and cognitive fatigue countermeasures.

11) Associations between Weight History, Eating Disorder Psychopathology, and Facets of Obsessive-Compulsiveness
1Hoekstra, T., 1Goodman, E., & 2De Young, K. (1University of North Dakota & 2University of Wyoming)

Abstract: Previous research has shown associations between overweight status and eating disorder symptoms (EDS). EDS have also been shown to be related to obsessive-compulsive (O-C) traits. However, it is unclear if individuals who have a history of being overweight are at increased risk for EDS if they are high on O-C traits. The current study investigated the relationship between O-C facets, current EDS, and history of being overweight. Participants were 433 (80.4% female) college students; they completed an online survey composed of measures on O-C facets, eating disorder psychopathology, current height and weight, and history of being overweight. Multiple linear regression was used to test if O-C facets moderated the relationship between a history of being overweight and current EDS while controlling for BMI. There was a significant interaction between a history of being overweight and obsessing (b = -.098, p = .032). Individuals without a history of being overweight had fewer EDS than those with a history of being overweight. However, as obsessing increased, individuals without a history of being overweight developed EDS more rapidly than those with a history of being overweight. No interactions were found for checking, hoarding, ordering, washing, and neutralizing, and weight history, though a main effect was found for all of them as well as weight status in every model. While most O-C facets may place one at risk for increased EDS, there are implications of weight history in the development of EDS in those who obsess.
12) Social Dominance Orientation Predicts Dress Code Attitudes
Caudy, J., Leighton, K., & Terrell, H. (University of North Dakota)

Abstract: Publicized dress code controversies have raised questions about the purpose and evaluation of strict regulations on student clothing. The purpose of the present study was to evaluate the degree to which social dominance orientation (SDO)—the extent to which a person believes that group-based inequalities are self-evident, self-reinforcing, and self-sustaining—predicts the perceived severity of a dress code violation. Participants completed the Social Dominance Orientation scale and then viewed an image in which a female student had violated a school dress code. Participants then answered a series of questions about the severity of the violation. The hypothesis was that participants higher in SDO would judge dress code violations more harshly than those low in SDO. The results indicated a positive correlation between SDO scores and perceived severity of the violation, thus providing support for the hypothesis.

13) Do Stereotypes about the Elderly Vary Based on Race?
Wanner, J., Shuldes, C., & Terrell, H. (University of North Dakota)

Abstract: The goal of the current study was to extend existing research on stereotypes about the elderly by varying the race of the target. College students were randomly assigned to read a scenario depicting a 71-year-old man, in which the man was described as either competent or incompetent. Researchers also attempted to manipulate the perceived race of the target via names stereotypically associated with either Black vs. White men. It was hypothesized that a competent target would be rated as less warm, and that this would be especially true for the White target. Results indicated no significant main effects or interactions; however, participants failed the manipulation check and overwhelmingly indicated that the target was a White man. These results highlight the importance of pre-testing stimulus materials.

14) Ambivalent Sexism and Endorsement of Dress Codes
Bock, R., Demarais, K., Leighton, K., & Terrell, H. (University of North Dakota)

Abstract: Ambivalent sexism provides a conceptual basis for understanding gender inequality in dress codes. The purpose of this study was to explore how dress code items are interpreted and justified and the degree to which ambivalent sexism was related to the perceived reasonableness of items. It was hypothesized that dress code items deemed to be primarily directed towards female students would be rated as modesty-related, and that benevolent sexism beliefs would be correlated with the degree to which such items were deemed as reasonable. These predictions were partially supported. Items that were rated as primarily directed at female students were more likely to be associated with modesty. Additionally, benevolent sexism was positively associated with judging the prohibition of low-cut tops as more reasonable, but only in male participants.

15) “He Seemed so Normal”: Single Tactic Perpetrators of Sexual Violence are Similar to Non-violent Men using the DSM-5's Hybrid Personality Disorder Model

Abstract: The corpus of sexual violence literature contains numerous studies comparing perpetrators to non-perpetrators, but less is known about differences between perpetrators using different tactics (i.e., physical/aggressive, non-physical/coercive, or both/polytactic). Similarly, specific personality traits are often measured in sexual violence research, but personality disorder
studies are less common. This research addresses these gaps by investigating potential personality disorder diagnoses in aggressive, coercive, and polytactic perpetrators using the DSM-5’s hybrid model of personality disorders. A nationwide sample of adult men (N=672) completed a survey measuring personality traits and sexually violent experiences. Men reporting sexual violence were expected to generate higher levels of maladaptive personality trait scores, leading to higher prevalence rates of Antisocial and Narcissistic Personality Disorders, than non-violent men. Aggressive and coercive men’s personality trait scores were statistically similar to those of non-violent men. Polytactic men were significantly more maladaptive than study counterparts, and were at greater risk of being classified as personality disordered. These findings have implications for models predicting sexual violence and for intervention and prevention efforts.

16) Conjunction Fallacy: Atheists and Christians
Perry, A., Rubenstein, A., Grove, R., & Terrell, H. (University of North Dakota)
Abstract: Although research has investigated prejudice against atheists, few studies have examined the content of atheist stereotypes. This study examined implicit evaluations of stereotypes attributed to Christians and atheists using the conjunction fallacy paradigm. A conjunction fallacy occurs when a statistically less probable condition is perceived as more probable than a single general condition. This mistake is related to when the less probable condition contains information that taps into a potential bias or stereotype. Three pilot studies identified characteristics considered to be stereotypical of atheists and Christians; the description “tradition-loving” was judged as stereotypical of Christians and counter-stereotypical of atheists, whereas “scientifically-minded” was judged as stereotypical of atheists and counter-stereotypical of Christians. We hypothesized participants would commit more conjunction errors in the atheist and Christian vignette when paired with the option of atheist or Christian in their response. After conducting a 2x2 study, our hypotheses were supported.

17) The Impact of ADHD, Sluggish Cognitive Tempo (SCT), Depression, and Anxiety on Executive Functioning in College Students
Baumler, T., Hanson, S., & Petros, T. (University of North Dakota)
Abstract: Extant research has examined the impact of ADHD on executive functioning (EF). Recent authors have examined the influence of a cluster of symptoms related to ADHD called sluggish cognitive tempo (SCT). Typical symptoms include daydreaming, boredom, and lethargy. College students (N = 239) completed self-report measures of ADHD (inattention, hyperactivity, and impulsivity), SCT, anxiety, and depression symptoms, as well as difficulties in EF. The study examined which symptoms were associated with difficulties in EF in emerging adults. Multiple regression analyses revealed symptomology accounting for variability in five domains of executive functioning (self-management to time, self-motivation, self-restraint, and self-organization/problem solving, and self-regulation of emotion). Overall, inattention accounted for the highest variability in EF across domains. SCT predicted EF in all domains, though it contributed most to variability in self-organization/problem solving and self-motivation. Our future research will analyze of group differences in clinical levels of ADHD, SCT, and comorbid ADHD/SCT.
18) Social Dominance and Race as Predictors of Perceptions of Guilt
Kroke, A., Price, K., & Terrell H. (University of North Dakota)

Abstract: The purpose of the current study was to better understand how the race of a suspect may influence perceptions of guilt as a function of the type of crime committed. It was hypothesized that African American suspects would be perceived as guiltier than Hispanic or Caucasian American suspects, and that participants higher in Social Dominance Orientation (SDO) would be especially likely to perceive non-White suspects as guilty. Participants were randomly assigned to read a scenario that depicted either a violent or non-violent crime in which the race of the suspect was varied. A two-way interaction was detected where participants lower in SDO perceived African American suspects as less likely to be guilty than Hispanic or Caucasian suspects, and Caucasian suspects as more likely to be guilty than suspects who were African American or Hispanic. These results may indicate a sort of “overcorrection” due to demand characteristics in participants who are less likely to endorse social dominance beliefs.

19) The Influence of Work in the Relationship between Trait Mindfulness and Anxiety in Emerging Adults
Hanson, S., Baumler, T., & Petros, T. (University of North Dakota)

Abstract: In meeting the demands of college life, emerging adults may become overwhelmed and prone to symptoms of anxiety and may be particularly true of students holding part-time or full-time jobs. A sample of college students (n=167) completed self-reported measures of trait mindfulness, anxiety, and demographic variables. Results indicated a relationship between trait mindfulness and anxiety which is congruent with established literature. Further analysis showed that hours worked moderated the relationship between trait mindfulness and symptoms of anxiety. At low levels of trait mindfulness, anxiety symptomology decreased with number of hours worked. At high levels of trait mindfulness, overall anxiety is relatively low regardless of hours worked; however, at high levels of trait mindfulness, anxiety increases slightly with hours worked. A regression model with hours worked as a moderator explains 22% of the variability between trait mindfulness and anxiety. The implications of these findings and future research directions are discussed.

20) Shame and Guilt in Academic Achievement: A Test of Two Theories
Dryden, R., Hladkyj, S., & Perry, R. (University of Manitoba)

Abstract: Emotions triggered by achievement outcomes have a powerful influence on university students’ achievement motivation and future performance. However, research on emotions in achievement contexts has left the negative self-conscious affects, shame and guilt, relatively ignored. Two prominent theories of achievement emotions, attribution theory and control-value theory, present conflicting views regarding the cognitive appraisals that lead to shame and guilt and the motivational consequences of these emotions. This study tested these two theories’ proposed models of shame and guilt in order to determine which theory had the more veridical interpretation of the antecedents and consequences of shame and guilt in the domain of academic achievement. The results of this study strongly indicate that shame and guilt do not differ with regard to their appraisal antecedents or motivational consequences. Thus, it appears that control-value theory’s proposed model of shame and guilt is a far more valid model of how negative self-conscious affect operates within the domain of academic achievement.
21) Romantic Red? A Failure to Replicate
Laurin, J. N., Cutshaw, N. A., Burd, M. J., & Terrell, H. K. (University of North Dakota)
Abstract: The current study was a replication and extension of an experiment by Elliot and Niesta (2008), who found that the color red is associated with higher ratings of attractiveness by men toward a woman target. The current study included male and female participants who identified as either heterosexual or bisexual. In this 2 x 2 factorial design, men were shown a photo of a woman on a white vs. red background and women were shown a photo of a man on a white vs. red background. Results indicated no significant main effects or interactions, calling into question whether the effects observed in the original study are replicable.

22) Contrast Effects in Attractiveness: An Attempted Replication
Holweger, T., Maring, S., Junker, C., Olson, S., & Terrell, H. (University of North Dakota)
Abstract: This study was conducted to see how men and women judged the attractiveness of an “average” woman after being exposed to highly sexually attractive women. The study was a 2 (gender of participant) x 2 (pre/post exposure to attractive stimuli) mixed factorial design. A previous study by Kenrick and Gutierres (1980) found that men perceived a woman to be less attractive after being exposed to a highly attractive woman. In the present study, however, exposure to highly sexually attractive women did not affect subsequent ratings of an average woman. Men and women rated both women (pre- and post-attractive stimulus) at the same level of attractiveness. However, a significant main effect for participant gender was detected.

23) Gender Role Expression as an Influence on Professor Evaluations
Geiger, A., Wolff, J., & Terrell, H. (University of North Dakota)
Abstract: Student evaluations of professors are important factors in employment decisions, but evaluations have been shown to be influenced by the professor’s gender and gender role expression. The purpose of this study was to determine if the gender role of a professor would affect student evaluations of performance. Vignettes of professors were presented in which professor gender (male vs. female) and gender role (masculine vs. feminine) were manipulated. Participants were asked to rate the professors on eight items related to aptitude and also to complete the Bem Sex Role Inventory as if it were describing the professor. Although evaluation of items from the Bem Sex Role Inventory indicated that female professors were viewed as significantly more loyal and reliable, no statistically significant effect was found for professor gender on overall evaluation scores. However, there were statistically significant main effects related to professor gender role. The results of this study indicate that gender role expression may influence professor evaluations.

24) Blood pressure response after a low dose of caffeine
Tukura, J., Borden-King Jones, T., Cottingham, S., Schepp, M., Kraft, A., Winburn, N., & Cole-Harding, S. (Minot State University)
Abstract: The effects of caffeine are commonly known to be beneficial for consumers as it positively affects mood and alertness as well as overall health. However, when given a low dose of caffeine, participants seem to show individual differences in blood pressure and pulse. A majority of studies reported that caffeine levels peak an hour after consumption but other studies showed that caffeine levels in the plasma peak 15 minutes after consumption. Our findings were consistent with the latter reports and support our hypothesis that a dose of caffeine that is similar
to a strong cup of coffee can produce detectable responses soon after it is consumed. We gave 10 participants 2 g/kg or 0 caffeine in coffee on different days. Caffeine levels (from saliva) as well as blood pressure and pulse were measured repeatedly over a 2-hour period. Caffeine level and systolic blood pressure peaked 15 minutes after consumption.

3:00-3:15pm  Networking Break  Fireside Lounge

Student Awards  3:15-3:30pm  UND Memorial Union, Lecture Bowl

Outstanding Service Award: Rachel Sjostrand
Outstanding Research: Taylor Baumler
Outstanding Psychology Student: Ayla Rubenstein

Keynote Address  3:30-5:00pm  UND Memorial Union, Lecture Bowl

Scaling up Cognitive Efficacy with Operational Neuroscience

Dr. Santosh Mathan, PhD (Honeywell Aerospace)

Description: Cognition and behavior arise from the activity of billions of neurons. Ongoing research indicates that non-invasive neural sensing techniques can provide a window into this never ending storm of electrical activity in our brains, and yield rich information of interest to system designers and trainers. Direct measurement of brain activity has the potential to provide objective measures that can help system designers and trainers in a variety of ways, including estimating the impact of a system on users during the design process, estimating cognitive proficiency during training, and providing new modalities for humans to interact with computer systems. In this presentation, Dr. Mathan will review research in the Honeywell Advanced Technology organization that offer novel tools and techniques to advance Human Computer Interaction. While many of these research explorations are at an early stage, they offer the preview of practical tools that lie around the corner for researchers and practitioners with an interest in boosting human performance in challenging task environments.