

# ILLOWA 2018

45<sup>th</sup> Annual Illinois-Iowa Undergraduate  
Psychology Empirical Research Conference  
Saturday, April 21, 2018

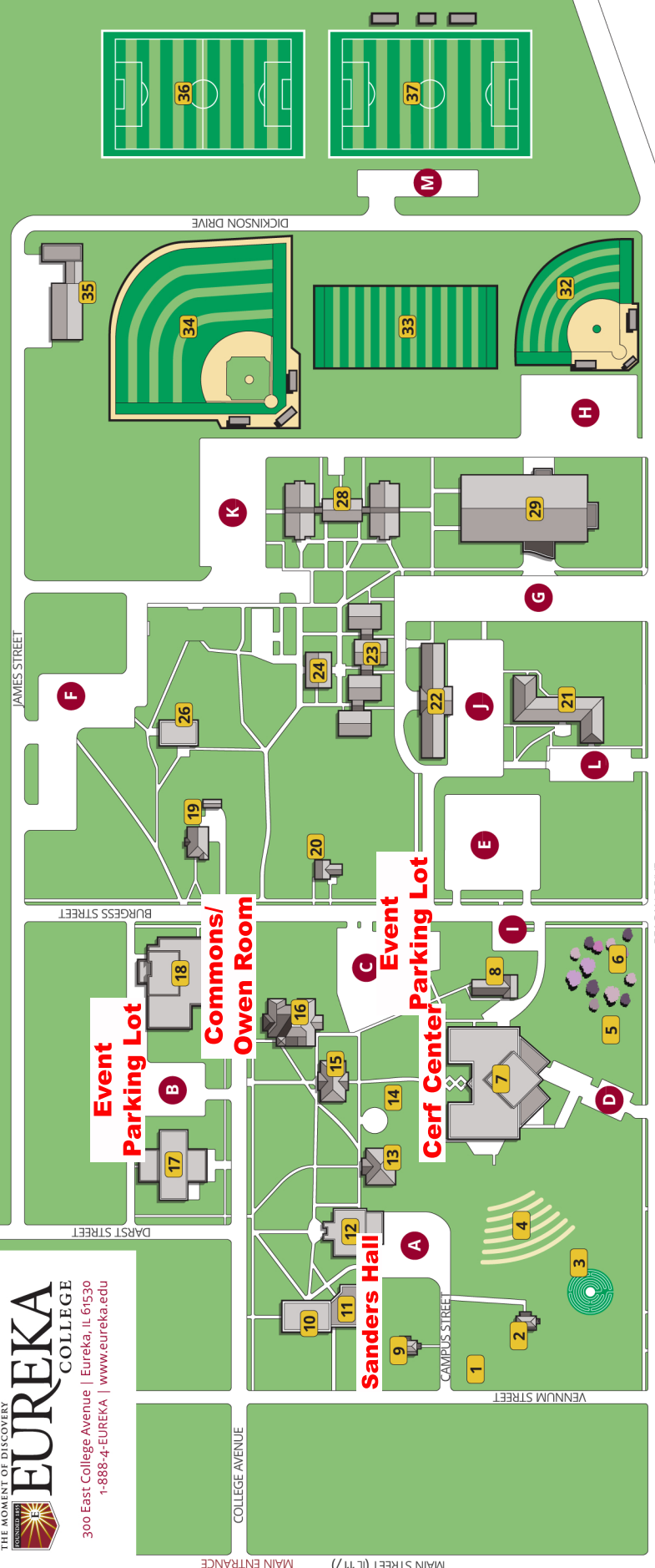
Keynote Address:  
Dr. Abraham Rutchick  
California State University, Northridge

*Connection, Remoteness,  
Mortality, and Trust in a  
Changing Technocultural  
Landscape*

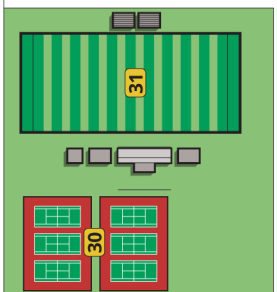


Hosted by  
Department of Psychology  
Eureka College, Eureka, IL





- P PARKING LOTS**
- Commuter/Faculty/Staff Lots**
- A. Pritchard (Faculty/Staff only)
  - B. Melick Library
  - C. Burgess West
  - D. Cerf South
- All Campus Lots**
- E. Burgess East
  - F. Wood/Gunz
  - G. Reagan West
  - H. Reagan East
- Residential Student Lots**
- I. Jones
  - J. Langston
  - K. Alumni Court
  - L. Arnold Hall
  - M. Dickinson



- 1. Lincoln Historic Marker
- 2. Jacob Rinker House
- 3. Labyrinth
- 4. Rinker Amphitheatre
- 5. The Old Spring
- 6. Lilac Arboretum
- 7. Donald B. Cerf Center: Becker Auditorium
- 8. Jones Hall
- 9. Burkland House: Education
- 10. Vennum-Binkley Hall
- 11. Sanders Hall
- 12. Pritchard Hall
- 13. Chapel
- 14. Ronald W. Reagan Peace Garden
- 15. Burrus Dickinson Hall
- 16. Burgess Memorial Hall
- 17. Melick Library:
- 18. Mark R. Shenkman Reagan Research Center
- 19. Dickinson Commons
- 20. President's Alumni and Guest House Whetzel House: Admissions and Financial Aid
- 21. Arnold Hall
- 22. Langston Hall
- 23. Founders' Court
- 24. Ben Major Hall
- 26. Gunzenhauser Hall
- 28. Alumni Court
- 29. Reagan Athletic Complex / Christine Bonati Bollwinkle Arena and Convocation Center / Bonati Fitness Center
- 30. Tennis Courts
- 31. Fiorito Stadium at McKinzie Field
- 32. Softball Field
- 33. Football Practice Field
- 34. Henry Sand Field
- 35. Operations and Facilities Management
- 36. Soccer Practice Field
- 37. Traister Field

# CONFERENCE HISTORY

ILLOWA is one of oldest continuing undergraduate psychological research conferences in the United States. Established 1973, ILLOWA was created when James Joyce and Kermit Hoyenga of Western Illinois University, Dean Wright of Monmouth College and Gary Francois of Knox College established a mechanism by which local colleges and universities could enhance interaction with each other and provide an educational research experience for their students.

ILLOWA has since expanded over to include nine educational institutions in Illinois, Iowa and Missouri. ILLOWA established its first website in 1998, at Culver-Stockton (Mo.) College. Since fall 2001, undergraduates who present at ILLOWA can also submit their papers for possible inclusion in the Journal of Psychological Inquiry.

The conference's programming format has remained relatively unchanged over the years in that only undergraduates are allowed to present their findings from empirical research projects. The host institution provides lunch, a visiting keynote speaker and absorbs the cost of the convention. The convention's site of is on a rotational basis. The date of the convention, if scheduling permits, is the Saturday before the Midwestern Psychological Association's annual convention.

The ILLOWA conference has been mentioned in Teaching of Psychology, Eye on Psi Chi and in the APA Monitor. Additionally, ILLOWA has been cited as one of the major undergraduate conferences in the United States. See: Smith and Davis (2010) The psychologist as a detective: An introduction to conducting research in psychology (5th Ed.).



James Joyce  
Western Illinois  
University

Kermit Hoyenga  
Western Illinois  
University

Dean Wright  
Monmouth College

Gary Francois  
Knox College

## CONFERENCE LOCATIONS

**Augustana College** – 1976, 1986, 1990, 1995, 2004

**Cornell College** – 1985

**Culver-Stockton College** – 1998, 2007, 2013, 2020

**Eureka College** – 2003, 2012, 2018

**Knox College** – 1977, 1980, 1984, 1988, 1993, 1997, 2002, 2009, 2015, 2022

**Monmouth College** – 1975, 1978, 1982, 1989, 1994, 1999, 2006, 2011, 2017

**St. Ambrose University** – 1981, 1992, 2001, 2008, 2014, 2021

**Western Illinois University** – 1974, 1979, 1983, 1987, 1991, 1996, 2000, 2005, 2010, 2016, 2023

# KEYNOTE SPEAKER BIO



Title of Keynote Address: *Connection, Remoteness, Mortality, and Trust in a Changing Technocultural Landscape*

Dr. Abraham Rutchick is an Associate Professor of Psychology at California State University, Northridge. He earned a bachelor's degree from Tufts University in biology and psychology and a PhD in psychology at the University of California, Santa Barbara.

He is, broadly, an applied social psychologist. His earlier work was on social perception, with a focus on the way people perceive political groups. He also conducted research on the nonconscious influence of everyday objects, including formal clothing, red pens, churches used as polling places, light bulbs, and ibuprofen.

This work has been featured in many media outlets, including the *Wall Street Journal*, the *New York Times*, *The Atlantic*, *Time*, and *The Huffington Post*. Strangely, this has also led to him providing “expert commentary” on other topics about which he knows little, such as the effect of prison uniforms on recidivism and the effect of workplace fashion on employees' confidence and work ethic. The highlight of his media career was probably, in a story by National Public Radio's Yuki Noguchi about clothing in the workplace, being quoted as saying he has been “dressing like a slob”.

More recently, he and his lab have begun a program of research at the intersection of social cognition and emerging technology. This work addresses how the capability of new technology to create both remoteness and intimacy influences the way we think and act.

When he's not working, Abe is usually spending time with his wife, 2½ -year-old son, and newborn daughter, concocting fancy cocktails, playing poker, or watching Boston sports teams win championships.



# ILLOWA 2018

## Schedule of Events

Time	Event	Location
8:00 - 8:45 AM	Registration and Breakfast	Cerf Center – Terrill Rooms
8:45 - 9:00 AM	Opening Remarks	Cerf Center – Becker Auditorium
9:10 - 10:40 AM	<p style="text-align: center;"><b>Morning Paper Sessions</b></p> <p>A – Social I</p> <p>B – Experimental/Clinical</p> <p>C – Social II</p> <p>D – Health</p>	<p style="text-align: center;"><b>Sanders Hall</b></p> <p style="text-align: center;">Room S308</p> <p style="text-align: center;">Room S309</p> <p style="text-align: center;">Room S207</p> <p style="text-align: center;">Room S108</p>
10:40 - 11:00 AM	Break	Cerf Center – Moser Lobby
11:00 AM - 12:00 PM	Keynote Speaker: Dr. Abraham Rutchick	Cerf Center – Becker Auditorium
12:15 - 1:15 PM	Lunch  Faculty Meeting	Dickinson Commons  Owen Room (DC)
1:30 - 3:00 PM	<p style="text-align: center;"><b>Afternoon Paper Sessions</b></p> <p>A – Social III</p> <p>B – Experimental</p> <p>C – Social/Personality</p> <p>D – Cognitive</p>	<p style="text-align: center;"><b>Sanders Hall</b></p> <p style="text-align: center;">Room S308</p> <p style="text-align: center;">Room S309</p> <p style="text-align: center;">Room S207</p> <p style="text-align: center;">Room S108</p>

Paper Sessions at a Glance

**9:10 - 10:40 AM**

<p><b>Morning A – Social I</b> Sanders Hall Room S308</p>	<p><b>Morning B – Experimental/Clinical</b> Sanders Hall Room S309</p>
<p><b>9:10 – International Students’ Perceived Accuracy of the Myers-Briggs Type Indicator</b> Author: Brett Clements Sponsor: Blake Nielsen Institution: Columbia College</p> <p><b>9:25 – The Effects of Gender Bias on Hiring for Non-Traditional Roles</b> Author: Mary Pierce Sponsor: Richard Beans Institution: Greenville University</p> <p><b>9:40 – Leadership Behaviors, Subordinate Well-Being, and Trust in the Leader</b> Authors: Pedro Navarro Sponsor: Tara McCoy Institution: Monmouth College</p> <p><b>9:55 – A Comparison of Aggression Levels Among Athletes in Contact and Non-contact Sports</b> Author: Cory Berberich Sponsor: Gerald McDonnell Institution: McKendree University</p> <p><b>10:10 – A Positive Association Between Perceived Language Discrimination and Feeling Stressed Among International Students</b> Author: Hieu (Emily) Ngo Sponsor: Gretchen Hendrickson Institution: Columbia College</p> <p><b>10:25 – The Effects of Anonymity and Moral Sensitization on Moral Behavior</b> Author: Lorida Reyes Sponsor: Richard Beans Institution: Greenville University</p>	<p><b>9:10 – Structure and Anxiety Reduction Methods</b> Authors: Sydni Neal &amp; Taylor Krile Sponsor: Ann Fulop Institution: Eureka College</p> <p><b>9:25 – Fibrous Displasia and Working Memory</b> Author: Stephanie Dehner Sponsor: Marsha Dopheide Institution: Monmouth College</p> <p><b>9:40 – A Behavioral Study of Food and Drinks on Interpersonal Interactions</b> Author: Tim Johnson Sponsor: Ann Fulop Institution: Eureka College</p> <p><b>9:55 – Children Susceptible to RAD</b> Author: Demetria Lawson Sponsor: Sarah Tarbell Institution: William Penn University</p> <p><b>10:10 – An Examination of ASI-3 Subscales, Trait Anxiety, and Biological Sex as Predictors of Generalize Anxiety Disorder Symptoms</b> Author: Cheri Newell Sponsor: Robert Intrieri Institution: Western Illinois University</p> <p><b>10:25 – The Effects of Art Therapy on College Students</b> Author: Joanna Podeseck Sponsor: Joan Wertz Institution: Monmouth College</p>

**Morning C – Social II**  
Sanders Hall Room S207

**Morning D – Health**  
Sanders Hall Room S108

**9:10 – Does Hard Work Pay Off?**

Author: Kenneth Schell  
Sponsor: Sarah Tarbell  
Institution: William Penn University

**9:25 – Environmental Influences on Deviant Behavior in Adolescence**

Author: Andre-Louis Hernandez  
Sponsor: Sarah Tarbell  
Institution: William Penn University

**9:40 – Perceptions of the Loneliness of International Students in the United States**

Author: Xinyue Lu  
Sponsor: Frank McAndrew  
Institution: Knox College

**9:55 – How Does Gender and Ethnicity Affect Students' Cultural Values and Leadership Styles?**

Authors: Hailey Becker, Ashley Brown, Andrew Pennock & Robert Becker  
Sponsors: Eva Ferguson  
Institution: Southern Illinois University Edwardsville

**10:10 – On the Streets and Between the Sheets: A Correlational Analysis of Gender Attitudes, Interpersonal Values, and Sexual Consent Behaviors**

Author: Noelle Zickefoose  
Sponsor: Jacqueline Kemp  
Institution: McKendree University

**10:25 – Infidelity, Sensation Seeking, Self-Control, and Relationship Characteristics**

Author: Camille Cotton  
Sponsor: Eugene Mathes  
Institution: Western Illinois University

**9:10 - What's the Difference Between Grit and Resiliency?**

Author: R. L. Aldridge  
Sponsor: Tara McCoy  
Institution: Monmouth College

**9:25 – The Role of Disembodiment in Women's Perception of Abortion Experiences: Surgical, Chemical, and Do-It-Yourself Methods**

Author: Carly Miller  
Sponsor: Heather Hoffman  
Institution: Knox College

**9:40 – Sleep Deprivation as a Factor to Academic Failure**

Author: Kelly Walker  
Sponsor: Sarah Tarbell  
Institution: William Penn University

**9:55 – The Protective Effects of Dietary Supplements on Spatial Learning in PIC Exposed Rats: A Model of Alzheimer's Disease – Pilot Study**

Authors: Cheyenne Rideaux, Matthew Alwood, & Jarod Nerad  
Sponsor: Matthew Blankenship  
Institution: Western Illinois University

**10:10 – Stressful Nights: How Do Nightmare Frequency and Learned Helplessness Affect PTSD Severity?**

Authors: Jelisa Powell  
Sponsor: Tim Kasser  
Institution: Knox College

Paper Sessions at a Glance

**1:30 - 3:00 PM**

<p><b>Afternoon A – Social III</b> Sanders Hall S308</p>	<p><b>Afternoon B – Experimental</b> Sanders Hall Room S309</p>
<p><b>1:30 – Racial Biases and the Desire to Hire</b> Author: Danielle Smith Sponsor: Richard Beans Institution: Greenville University</p> <p><b>1:45 – The Influence of Tattoos on Judgements of Perceived Characteristics</b> Author: Chelsea Barnes Sponsor: Richard Beans Institution: Greenville University</p> <p><b>2:00 – Primers of Salient Fan Identity and Predictors of Harry Potter Fandom</b> Author: Jessica Heim Sponsor: Frank McAndrew Institution: Knox College</p> <p><b>2:15 – Sex Differences Across Ageism Measures</b> Author: Kayla Smiley Sponsor: Robert Intrieri Institution: Western Illinois University</p> <p><b>2:30 – How Guilt and Shame Affect the Transgressor’s Apology</b> Author: Mariamy Chrdileli Sponsor: Tim Kasser Institution: Knox College</p> <p><b>2:45- Effects of Attractiveness of Willingness to Help, Empathy, and Perception of Need</b> Author: Sarah Merodio Sponsor: Kateryna Sylaska Institution: Monmouth College</p>	<p><b>1:30 – The Effects of Motivation through Social Facilitation on Lifting Performance</b> Author: William Sunderland Sponsor: Richard Beans Institution: Greenville University</p> <p><b>1:45 – The Impact of Written Expectations on Work Efficiency</b> Author: Seaver Sheord Sponsor: Richard Beans Institution: Greenville University</p> <p><b>2:00 – Effects of Diagnose Disability on Hiring Attitudes</b> Author: Tori Papez Sponsors: Richard Beans Institution: Greenville University</p> <p><b>2:15 – Adult Attachment and the Perception of Angry Faces</b> Author: Janika Gremlund Sponsors: Richard Beans Institution: Greenville University</p> <p><b>2:30 – The Effects of Performance Feedback and Extrinsic Rewards on Efficacy and Productivity</b> Author: Brooke Goodyear Sponsor: Richard Beans Institution: Greenville University</p> <p><b>2:45 – Fear Appeals and Moral Appeals: A Comparison of the Persuasion Tactics on Vaccinations and Texting and Driving</b> Author: Caleb McKay Sponsor: Richard Beans Institution: Greenville University</p>

<b>Afternoon C – Social/Personality</b> Sanders Hall Room S207	<b>Afternoon D – Cognitive</b> Sanders Hall Room S108
<p><b>1:30 – Differences in Self-Perceived Creativity Among Undergraduate Majors</b>            Authors: Samantha Broms &amp; Taren Elder            Sponsors: Ann Fulop            Institution: Eureka College</p> <p><b>1:45 – Mental Illnesses as Relationship Dealbreakers</b>            Author: Jordan Morton &amp; Tatiana Neives            Sponsor: Guy Boysen            Institution: McKendree University</p> <p><b>2:00 – Students’ Definition of Academic Success</b>            Author: Stephanie Sager            Sponsor: Ann Fulop            Institution: Eureka College</p> <p><b>2:15 – How Anxiety is Effectuated by Meaning and Chance</b>            Authors: Marissa Somodi, Aida Juarez, &amp; Heather Foster            Sponsors: David Lane            Institution: Western Illinois University</p> <p><b>2:30 – Depression Goes Deeper: The Relationship Between Depression and Tone in Narrative Identity</b>            Authors: Ashlyn Maher            Sponsor: Tara McCoy            Institution: Monmouth College</p> <p><b>2:45 – The Effects of Helicopter Parenting on College Students’ Mental Well-Being and Quality Relationships with Parents and Peers</b>            Author: Carley Interrial            Sponsors: Kateryna Sylaska            Institution: Monmouth College</p>	<p><b>1:30 – Free Recall vs Cued Recall: Tip-of-the-Tongue Phenomenon</b>            Author: Lizdriana Fajardo            Sponsor: Richard Beans            Institution: Greenville University</p> <p><b>1:45 – Music and Task Switching: Does Playing an Instrument Enhance Attentional Task Switch?</b>            Authors: Raina Isaacs &amp; Rebecca Chicosky            Sponsor: Gerald McDonnell            Institution: McKendree University</p> <p><b>2:00 – The Effects of Note-taking on Memory Recall</b>            Author: Stephanie Christian            Sponsor: Richard Beans            Institution: Greenville University</p> <p><b>2:15– Visual Processing and Body Image in Eating Disorders: Examining the Role of Central Coherence</b>            Author: Stephanie Saey            Sponsor: Marsha Dopheide            Institution: Monmouth College</p> <p><b>2:30 – The Mozart Effect: How Time Delay Affects Physiological Arousal and Test Performance</b>            Author: Kalei Swogger            Sponsor: Richard Beans            Institution: Greenville University</p>

**Morning Paper Session A**  
**9:10 - 10:40 AM**  
**Sanders Hall Room S308**  
**SOCIAL I**

**9:10 – International Students’ Perceived Accuracy of the Myers-Briggs Type Indicator**

Author: Brett Clements

Sponsor: Blake Nielsen

Institution: Columbia College

This study investigated how the Myers-Briggs Type Indicator (MBTI) fit into the emic versus etic framework, investigating how constructs are defined culturally versus universally. There is a gap in the literature regarding international students’ evaluation of their MBTI personality type and how acculturation influences that evaluation. Thirty-seven college students from 8 countries, primarily in East Asia (N=12) and the United States (N=20) completed the MBTI and the Vancouver Index of Acculturation. It was hypothesized that international students’ acculturation to mainstream American culture would positively associate with perceiving the MBTI as accurate, but this was not supported. Additionally, it was hypothesized that international students’ would perceive the MBTI less accurately than domestic students, but this was also not supported. Results are interpreted using the emic-etic framework and suggestions for future investigations are discussed.

**9:25 – The Effects of Gender Bias on Hiring Non-traditional Roles**

Author: Mary Pierce

Sponsor: Richard Beans

Institution: Greenville University

This study examined the effects of gender bias on hiring. Latu, Mast, & Stewart (2015) found that women are less likely than men to be hired for positions of power, as power is not traditionally associated with the female gender role. The research attempts to answer the question “Does the gender of an applicant negatively affect their likelihood to be hired for a non-traditional career?” Participants were conveniently sampled and randomly assigned to one of two groups. One group was given the resume of a non-traditional gender role and the other group was given a resume of a traditional gender role. Both groups then gave numerical ratings on their willingness to hire their assigned applicant. I hypothesized that participants in the traditional role group would be more willing to hire than participants in the non-traditional group. Results and implications will be presented.

**9:40 - Leadership Behaviors, Subordinate Well-Being, and Trust in the Leader**

Authors: Pedro Navarro

Sponsor: Tara McCoy

Institution: Monmouth College

This study investigated the relationship between leadership behavior, subordinate well-being, and subordinates’ trust in their leader. The purpose was to discover which behaviors relate best to a happy, trusting employee. Participants were collected through social media and completed a survey that asked them to describe the behavior of one of their leaders, as well as complete measures of their life satisfaction, general health, and trust towards their leader. Results showed correlations between participants’ trust towards their leader and ethical leadership behaviors such as honesty ( $r(28) = 0.744, p = 0.000$ ), respect ( $r(28) = 0.772, p = 0.000$ ), and fairness ( $r(28) = 0.815, p = 0.000$ ). There was also a relationship between supportive leadership behaviors and participants’ general health ( $r(28) = 0.365, p = 0.047$ ).



### **9:55 - A Comparison of Aggression Levels Among Athletes in Contact and Non-contact Sports**

Author: Cory Berberich

Sponsor: Gerald McDonnell

Institution: Monmouth College

Aggression has an important impact on our day to day interactions and how we accomplish tasks, and this is becoming increasingly evident in athletics. For this study, I randomly selected athletes from McKendree University to participate in my study. I conducted a survey with a standard Likert scale in an effort to compare aggression levels among both male and female contact and non-contact sport athletes. My research hypothesis is that male contact sport athletes will have the highest self-reported aggression levels of all participants. This study is important because we live in a sport-dominated culture, and gaining a broader understanding of our sport and how we perceive ourselves while participating in our passion will help us to have a greater appreciation for athletics.

### **10:10 - A Positive Association Between Perceived Language Discrimination and Feeling Stressed Among International Students**

Author: Hieu (Emily) Ngo

Sponsor: Gretchen Hendrickson

Institution: Columbia University

Perceived language discrimination was found as one of the factors associated with feeling stress as an international student (Wei et al., 2015). However, research on language discrimination is scant and has not received as much attention compared to other factors such as acculturation and racial discrimination that associate with international students' mental health. To test this, thirty-two international students of Columbia College of Missouri completed the Perceived Stress Scale by Cohen et al. (1983) and the Perceived Language Discrimination Scale by Wei et al. (2012). The current study found a positive association between perceived language discrimination and stress among international students. A relationship also existed between participants' feelings of rejection by others because of their English skill and their perceived stress. In addition, the study showed a positive association between the numbers of clubs or organizations international students participated in and their feelings of being on top of things.

### **10:25 - The Effects of Anonymity and Moral Sensitization on Moral Behavior**

Author: Lorida Reyes

Sponsor: Richard Beans

Institution: Greenville University

This study examined the effects of anonymity and induced moral sensitivity upon cheating on a reward task. College students were randomly assigned to a control group which completed a creative task and an experimental group which completed a moral judgment form. Both groups were then offered the opportunity to participate in a reward game. Participants threw a die twice and self-recorded their results. If participants obtained odd numbers on both throws of the die they received a reward. The researcher was not present, but the participants' throws were surreptitiously recorded. Therefore, participants were under the impression that the self-reports of their die casts were anonymous. I hypothesized that participants in the moral judgement group would cheat less regarding their self-reported die casts than participants in the creative task group, as presumably the moral judgement task would sensitize participants to the ideal of honesty. Results and implications will be discussed.

Morning Paper Session B  
9:10 - 10:40 AM  
Sanders Hall Room S309  
**EXPERIMENTAL/CLINICAL**

**9:10 - Structure and Anxiety Reduction Methods**

Author: Sydni Neal & Taylor Krile

Sponsors: Ann Fulop

Institution: Eureka College

Many individuals experience anxiety in their everyday lives. This study aimed to answer the question of whether having structure in anxiety reduction methods reduces anxiety more than not having structure. It was hypothesized that participants who colored images with high structure would experience greater anxiety reduction than those who colored images with low structure. 40 participants (13 male, 27 female) were recruited. Participants took a state and trait anxiety questionnaire 3 times during the course of the study; once before anxiety induction, once after anxiety induction and once after coloring. After anxiety induction, participants were given either a high structure image, a medium structure image, a low structure image or a no structure image. Results showed no significant interaction between level of structure and anxiety reduction. However, anxiety was reduced after coloring. Coloring, regardless of structure, was effective in reducing anxiety.

**9:25 - Fibrous Dysplasia and Working Memory**

Author: Stephanie Dehner

Sponsor: Marsha Dopheide

Institution: Monmouth College

Due to anecdotal complaints of memory impairments among fibrous dysplasia (FD)/McCune Albright syndrome (MAS) patients, an experiment was designed to determine if these patients perform worse on memory tasks than the general population. Several potentially-confounding variables were also considered. Seventy-four participants were recruited via social media and divided into the FD/MAS group ( $n = 32$ ,  $M$  age = 40) and the control group ( $n = 42$ ,  $M$  age = 40). Participants were given a digit span test, a missing word recall test, and a one-question prospective memory task. FD/MAS patients performing significantly worse on the digit span task ( $M=40.00$ ,  $SD, 17.43$ ) than the control group ( $M=49.29$ ,  $SD=2.19$ ),  $t(71) = -2.540$ ,  $p=0.013$ . Other findings related to potential confounds will be discussed in the presentation. This is the first study of memory in FD/MAS patients; thus, future research is necessary to validate these findings and to address the concerns of FD/MAS patients.

**9:40 - A Behavioral Study of Food and Drinks on Interpersonal Interactions**

Author: Tim Johnson

Sponsor: Ann Fulop

Institution: Eureka College

This study investigated whether the presence of food and drink can set the occasion for increased conversation engagement response between two individuals. 46 college students in same-sex dyads were left in a waiting room for five minutes with or without food and drinks while data was gathered on their verbal interactions. Participants also completed conversation satisfaction and partner connectedness forms. An ANOVA determined no significant differences in any measures of conversation engagement between experimental food and drink dyads and control dyads. However, some gender differences and interaction effects were found. The study demonstrates that food and drink may have some effect on satisfaction and connectedness that differs with gender, but not a behavioral effect on conversational engagement.

### **9:55 - Children Susceptible to RAD**

Author: Demetria Lawson

Sponsor: Sarah Tarbell

Institution: William Penn University

The purpose of this study is to identify the relationship between adoption and attachment disorders specifically Reactive Attachment Disorder (RAD). Children who experience abuse (emotional and physical) abuse are more likely to develop Reactive Attachment Disorder; children under the age of 5 are more susceptible. A case study was the best viable method of analysis for this hypothesis. The study employs a descriptive, grounded theory, based in qualitative design that uses a multi-stage semi-structured interview approach to examine the processes that occur in families who adopt children with RAD. The interview questions explored multiple aspects of family life, such as the adoption process, the emergence of RAD behaviors in the adopted children, professional help seeking, and coping/stress management. The results revealed six prominent themes that illustrate the social and emotional processes that occur in families who adopt children with RAD.

### **10:10 - An Examination of ASI-3 Subscales, Trait Anxiety, and Biological Sex as Predictors of Generalized Anxiety Disorder Symptoms**

Author: Cheri Newell

Sponsor: Robert Intrieri

Institution: Western Illinois University

Among college students, dating couples with high levels of avoidant attachment showed less satisfaction with their relationships and experienced feelings of loneliness. I predicted that participants' perception of international students who are in a romantic relationship with people who share the same cultural heritage will score the lowest on the loneliness scale. In this study, participants were 229 Knox College students recruited via e-mail and flyers hanging up around the college campus. Participants were randomly assigned to read one of three written scenarios and responded to items on the UCLA loneliness scale. The result shows that both international students and American students reported the loneliness level for the character who is not in any romantic relationship. International students reported higher loneliness levels than American students.

### **10:25 - The Effects of Art Therapy on College Students**

Authors: Joanna Podsek

Sponsor: Joan Wertz

Institution: Monmouth College

Coloring books and mandalas have increased in popularity over the past few years due to their anxiolytic and calming effects. This study gathered 66 undergraduate participants, 25 males and 41 females to determine if coloring reduces anxiety, heart rate, and negative affect, while increasing positive affect in individuals. The results confirmed the predicted trends and showed the mandala group did experience a larger decrease in anxiety, heart rate, and decrease in negative mood. However there was not enough power in the study to demonstrate significance between the two groups.

**Morning Paper Session C**  
**9:10 - 10:40 AM**  
**Sanders Hall Room S207**  
**SOCIAL II**

**9:10 - Does Hard Work Pay Off?**

Author: Kenneth Schell

Sponsor: Sarah Tarbell

Institution: William Penn University

The purpose of this study is to help people understand what it takes to have a major impact on society and become successful. The variables of opportunity, geographic location, gender and ethnicity are key factors in leading to someone's success. In this experiment, there is a case study using stratified sampling to select two individuals from two separate geographic locations. One individual from a lower class neighborhood and one from a higher class neighborhood. They are observed in order to see who acquires a higher income (success measurement) over a five year time period. The experiment demonstrates that individuals from higher social class neighborhoods having a higher income as time progresses. This is because due to more opportunity for better jobs, a higher quality education, and being raised in a stable home.

**9:25 - Environmental Influences on Deviant Behavior in Adolescence**

Author: Andre-Louis Hernandez

Sponsor: Sarah Tarbell

Institution: William Penn University

This study investigates the social development among adolescents in association to deviant behavior, what influences adolescents to deviate, as well as what quality of status are more likely to engage in deviant behavior. This study uses stratified random sampling of 20 total high school students. 10 participants from a public high school setting (School A) and 10 participants from a private school setting (School B). Students participated in a series of academic questions in a controlled setting were given the opportunity to cheat. To assess the study, a confederate observer was used. Results showed public school students more likely to engage in cheating. Private school students were less likely to engage in cheating. Reasoning could include zero tolerance policies or education quality.

**9:40 - Perceptions of the Loneliness of International Students in the United States**

Authors: Xinyue Lu

Sponsor: Frank McAndrew

Institution: Knox College

Among college students, dating couples with high levels of avoidant attachment showed less satisfaction with their relationships and experiences feelings of loneliness. I predicted that participants' perception of international students who are in a romantic relationship with people who share the same cultural heritage will score the lowest on the loneliness scale. In this study, participants were 229 Knox College students recruited via e-mail and flyers hanging up around the college campus. Participants were randomly assigned to read one of written three scenarios and responded to items on the UCLA loneliness scale. The result shows that both international students and American students reported the loneliness level for the character who is not in any romantic relationship. International students reported higher loneliness levels than American students.

**9:55 - How Does Gender and Ethnicity Affect Students' Cultural Values and Leadership Styles**

Authors: Hailey Becker, Ashley Brown, Andrew Pennock, & Robert Becker

Sponsors: Eva Ferguson

Institution: Southern Illinois University

We investigated how both gender and ethnicity affected college students' responses on the Ferguson Parental Values Adult Scale (PVa), which measures what parenting styles the students would use when they become parents, and the Triandis scale, which measures how collectivistic or individualistic the students' values are. Previous data analyses from these students had shown that both gender and ethnicity affected the way the students had been raised by their own parents but did not reveal how these variables related to the students' own values. In the present study significant results were found for the Triandis scale and for the PVa for both gender and ethnicity, thus yielding new insights regarding how gender and ethnicity affects students' own values.

### **10:10 – On the Streets and Between the Sheets: A Correlational Analysis of Gender Attitudes, Interpersonal Values, and Sexual Consent Behaviors**

Author: Noelle Zickefoose

Sponsor: Jacqueline Kemp

Institution: McKendree University

This study analyzes the correlation between gender attitudes, interpersonal values, and sexual consent behavior; I hypothesize that egalitarian gender attitudes, communal interpersonal values, and progressive consent behaviors will be positively correlated. Participants completed a survey containing three measures corresponding to each variable. Previous research has assessed the relationship between traditional gender norms and conservative beliefs; correspondingly, studies have reported an association between conservative beliefs and consent behaviors which follow the traditional sex script. Thus, I suggest that the ways in which an individual internalizes gender norms through their attitudes, their preferences and expectations regarding interpersonal relations, and the choices they make while negotiating sexual consent will be interconnected.

### **10:25 – Infidelity, Sensation Seeking, Self-Control, and Relationship Characteristics**

Author: Camille Cotton

Sponsor: Eugene Mathes

Institution: Western Illinois University

According to Zuckerman's sensation seeking theory, sensation seeking individuals seek out varied and complex sensations and experiences to maintain the optimal level of arousal (Zuckerman, Neary, & Mangelsdorff, 1972). Findley hypothesized self-control underlies the willingness to sacrifice for a romantic partner (Findley, Carvallo, & Bartak, 2014). The purpose of this research was to test the hypothesis that there is a positive relationship between sensation seeking and infidelity and a negative relationship between self-control and infidelity. Participants in relationships filled out measures of sensation seeking, self-control, commitment, love, probability of marriage and infidelity. Sensation seeking correlated positively with infidelity while self-control, commitment, and love correlated negatively with infidelity.

Morning Paper Session D  
9:10 - 10:40 AM  
Sanders Hall Room S108  
**HEALTH**

**9:10 - What's the Difference Between Grit and Resiliency**

Authors: R. L. Aldridge

Sponsor: Tara McCoy

Institution: McKendree College

Grit and resiliency are two personality traits that can be considered different, with different conceptual definitions. The goal of this study was to investigate the similarity between grit and resilience and the similarity between grit and conscientiousness. Participants were asked to fill out an online survey about grit, resilience, and conscientiousness. Grit and resiliency were found to have a P-value = 0.138 ( $r=0.219$ ). Grit and conscientiousness were also not correlated with a P-value = 0.053 ( $r=0.723$ ). These findings provide support for research question that these constructs are conceptually and statistically distinct.

**9:25 – The Role of Disembodiment in Women's Perception of Abortion Experiences: Surgical, Chemical, and Do-It-Yourself Methods**

Author: Carly Miller

Sponsor: Heather Hoffman

Institution: Knox College

This study aimed to determine whether access (versus in-access) to accurate medical information on abortion and abortion procedures (chemical, surgical, and do-it-yourself methods) significantly affected perceptions of these procedures as embodied in female-bodied participants ( $N = 24$ ). Participant abortion knowledge was evaluated with an online survey scale. Experimental participants ( $N = 12$ ) received accurate medical information, while control participants ( $N = 12$ ) received no accurate medical information on abortion and abortion procedures of chemical, surgical, and DIY methods. Results were analyzed using three between-subjects analyses of variance (ANOVAs). A near significant interaction between prior abortion knowledge and availability for the DIY condition was found. Women with low abortion knowledge were more likely to experience a DIY abortion procedure as embodied if they received accurate information about this procedure than if they did not. Providing abortion information about DIY procedures did not affect embodiment for women with high prior abortion knowledge.

**9:40 – Sleep Deprivation as a Factor to Academic Failure**

Author: Kelly Walker

Sponsor: Sarah Tarbell

Institution: William Penn University

Daytime sleepiness, sleep deprivation, and irregular sleep schedules are highly prevalent among college students, as 50% report daytime sleepiness and 70% attain insufficient sleep. This type of stress is known to exert a psychological and physiological toll on students. The consequences of sleep deprivation and daytime sleepiness are especially problematic to college students and can result in lower grade point averages, increased risk of academic failure, compromised learning, and impaired mood. This study has found sleep deprivation to be a major issue among college students, compares variables that interact with sleep deprivation, and elaborates on the consequences sleep has on academic success. Specifically those in sleep deprivation are found to have significantly lower academic scores, less social success, and report degrees of mood and learning impairment.



### **9:55 – The Protective Effects of Dietary Supplements on Spatial Learning in PIC Exposed Rats: A Model of Alzheimer’s Disease – Pilot Study**

Authors: Cheyenne Rideaux, Matthew Alwood ,& Jarod Nerad

Sponsor: Matthew Blankenship

Institution: Western Illinois University

The rate of Alzheimer's disease has been increasing; currently ranking as the sixth leading cause of death in the United States. There is increasing evidence that inflammation in the brain is associated with higher and earlier rates of cognitive impairments leading to Alzheimer's. Changes in diets have become a large focus on fighting the cognitive decline. Diets that have been studied have centered around foods high in anti-oxidants (like blueberries and grapes). An inflammatory response is thought to facilitate the build-up of proteins associated with Alzheimer's disease and ultimately results in memory decline in older age. Therefore, increased inflammation in the brain (chemically induced) is hypothesized to lead to cognitive decline, but increased antioxidants in everyday diet may reduce the cognitive decline. The effects of diet and inflammation on cognitive ability were tested on a plus maze as well as a context-cued passive avoidance box.

### **10:10 – Stressful Nights: How Do Nightmare Frequency and Learned Helplessness Affect PTSD Severity?**

Authors: Jelisa Powell

Sponsor: Tim Kasser

Institution: Knox College

Individuals who have had a trauma and individuals who have a posttraumatic stress disorder (PTSD) often experience frequent nightmares. These nightmares may cause individuals to have internal, stable, and global attributions for failure situations, which may lead to feelings of helplessness. Based on this research, I hypothesized that there was a positive correlation between nightmare frequency and severity of PTSD; this relationship was mediated by learned helplessness for nightmares. Fifty-two MTurk workers, who were 18 years or older and experienced a severe trauma according to the DSM-5, were used as subjects. The workers answered two retrospective questions about their nightmares, filled out an online nightmare diary for 14 consecutive days. Afterwards, they filled out a survey on their attributions and another survey on their PTSD severity. Correlations will be presented between: (1) nightmare frequency and PTSD severity; (2) nightmare frequency and learned helplessness; and (3) learned helplessness and PTSD severity.

Afternoon Paper Session A  
1:30 - 3:00 PM  
Sanders Hall Room S308  
**SOCIAL III**

**1:30 – Racial Biases and the Desire to Hire**

Author: Danielle Smith

Sponsor: Richard Beans

Institution: Greenville University

This study examined racial biases in hiring. Bertrand & Mullainathan (2004) demonstrated how workplace biases occur through the use of mock resumes of Caucasian and African-American applicants. They found that African-American males were less likely to be hired than Caucasian males. For this study, participants were conveniently sampled from online platforms and social media outlets. Participants were randomly assigned to one of four resume groups which depicted Caucasian and Hispanic male applicants for blue-collar and white-collar positions. I hypothesized that participants would be more willing to hire the Caucasian male applicant than the Hispanic male applicant for both positions. Results and implications will be discussed.

**1:45 – The Influence of Tattoos on Judgements of Perceived Characteristics**

Author: Chelsea Barnes

Sponsor: Richard Beans

Institution: Greenville University

A plethora of people hold a bias, whether they know it or not, against people with tattoos. To test this, 20 participants were given an image of a female model with no tattoos and another 20 participants were given an image of the same female model, but this time with tattoos. Matched with these images are a list of characteristics with a 1-5 scale of level of agreement with the characteristic stated. These participants had to disclose whether or not they have permanent tattoos on their own body on a demographic form following the presentation of the images and characteristic rating scales. Previous research states that there are significant differences in character ratings based on tattoos or lack thereof, in favor of those without tattoos (Resenhoeft, 2008). My hypothesis is that the image of the female model with tattoos will receive lower characteristic ratings than the female model without tattoos.

**2:00 – Primers of Salient Fan Identity and Predictors of Harry Potter Fandom**

Author: Jessica Heim

Sponsor: Frank McAndrew

Institution: Knox College

This study explored the phenomenon of fan culture from the perspective of identity salience and parasocial relationships. We focused on the Harry Potter fandom due to its popularity in the undergraduate population at Knox College. Data were collected digitally through surveys on Qualtrics. Analyses revealed no effect of Harry Potter fan identity salience for either fans or non-fans. Several predictors of fan identity were found, including empathy, fan behaviors, overall fan score, and transportation. Results suggest that fan identity and behaviors may be used to predict each other.

**2:15 – Sex Differences Across Ageism Measures**

Author: Kayla Smiley

Sponsor: Robert Intrieri

Institution: Western Illinois University

Ageism is the prejudice of one age group toward other age groups (Butler, 1969) and is a pervasive and insidious problem in society today. However, there is scant research examining sex differences across ageism measures. The current study examines sex differences across lower order factors of Aging Semantic Differential

(ASD) and the Fraboni Scale of Ageism (FSA). Using a convenience sample of 471 undergraduate students with a mean age of 19.68 (SD= 2.278), a series of ANOVAs examined sex differences. ANOVA revealed statistically significant sex differences for ASD-Instrumental ( $F(1, 469)= 4.92, p<0.027$ ), ASD-Integrity ( $F(1, 469)= 4.475, p<0.035$ ) and ASD-Acceptance ( $F(1, 469)= 8.616, p<0.003$ ). ANOVA revealed significant sex differences on the FSA-Avoidance factor ( $F(1, 469)= 12.187, p<0.001$ ). This study provides evidence that men have more positive attitudes toward older adults across ASD- Integrity and Acceptance. In contrast women held more positive attitudes on the ASD-Instrumental and FSA-Avoidance factors.

### **2:30 – How Guilt and Shame Affect the Transgressor’s Apology**

Author: Mariamy Chrdileli

Sponsor: Tim Kasser

Institution: Knox College

Although previous studies have found that greater guilt and lesser shame are associated with willingness to apologize (Howell, Turowski, & Buro, 2012), only hypothetical scenarios were used to assess participants' proclivity to apologize. In this study, 30 undergraduate students completed guilt and shame measures. Then, in order to measure their proclivity to apologize, they were deceived into thinking that they were late. The participants' apologies were coded using the Apology Scale, developed for the study. The results revealed a significant positive relationship between apology and Guilt-Repair subscale ( $r = .47, p < .01$ ) as well as apology and Guilt-Negative-Behavior-Evaluation ( $r = .37, p < .04$ ). Contrary to previous findings there was no significant relationship between the Shame-Withdrawal subscale, the Shame-Negative-Evaluation subscale, and apology. Results are viewed in terms of guilt being a motivator for reparative action.

### **2:45- Effects of Attractiveness of Willingness to Help, Empathy, and Perception of Need**

Author: Sarah Merodio

Sponsor: Kateryna Sylaska

Institution: Monmouth College

Children’s attractiveness may be an important influence on an individual’s willingness to help the child. Previous research suggests that people are more willing to help less attractive children (Fisher & Ma, 2014). The respondents in the current study were recruited through Monmouth College and social media sharing ( $N = 234$ ). After providing consent, each participant was randomly assigned in a 2 (sex of child: male or female) x 2 (attractiveness of child: low or high) between subject’s. Respondents completed an online survey which asked them to view a charity flyer and then answer questions about the flyer pertaining to their willingness to help, empathy, and perception of the child’s need. In this study. None of the effects were statistically significant. Future research should explore the specific conditions under which attractiveness influences help provision.

Afternoon Paper Session B  
1:30 - 3:00 PM  
Sanders Hall Room S309  
**EXPERIMENTAL**

**1:30 – The Effects of Motivation through Social Facilitation on Lifting Performance**

Author: William Sunderland

Sponsor: Richard Beans

Institution: Greenville University

This investigation examined the effects of the projection of motivation through social facilitation on maximum repetitions in weight lifting performance. Thirty-two male athletes from Greenville University's baseball, basketball, and soccer team squatted the most amount of repetitions that they were able to lift. They squatted 75 percent of their body weight in both the motivated and demotivated group. While the participants squatted, the experimenter exhibited positive or negative non-verbal cues in the motivated (positive) or demotivated (negative) group. The motivated and demotivated groups did not confirm significant differences ( $t = .13, p > .05$ ). These results are not consistent with previous social facilitation and motivation studies (Rhea, Landers, Alvar, & Arent, 2003; Walker, 1974). The results imply that male athletes are not significantly affected by attempts to increase or decrease motivation, and that performance is attributed to each individual. Explanatory factors are explored with implications for future studies.

**1:45 – The Impact of Written Expectations on Work Efficiency**

Author: Seaver Sheord

Sponsor: Richard Beans

Institution: Greenville University

This experiment examined the effect of written expectations on work efficiency. Prior studies have analyzed the influence that expectations have on performance, however, nearly all of these studies have exclusively investigated human instructors who gave verbal expectations to participants (Rosenthal & Jacobson, 1968). Also, most research on this topic has examined the effect of expectations on educational performance rather than on work efficiency. In this study, forty participants were conveniently sampled. Participants were randomly assigned to either the control group (no expectation) or the experimental group (high expectation) and given the task, through written instructions, to sort papers alphabetically in a timely manner to the best of their abilities. The amount of time that the task took the participants to complete was measured. I hypothesized that participants given the high expectation would complete the task more quickly than those given no expectation. Results and implications will be discussed.

**2:00 – Effects of Diagnose Disability on Hiring Attitudes**

Author: Tori Papez

Sponsors: Richard Beans

Institution: Greenville University

The general public has a wide range of views regarding the abilities and proficiencies of the mental disability community. The views of the general public towards persons with mental disabilities are often negatively biased by preconceived ideas. Because of this, individuals diagnosed with specific disabilities (e.g. Down's syndrome) compared to those with other diagnoses (e.g. autism), can receive discrimination in the workforce (Sytsma-Jordan & Mayville, 2003). In the present study students were randomly assigned to one of three disability conditions (Down syndrome, autism, and a control). All applications were identical except for the disability listed. I predicted there would be a significant difference in willingness to hire ratings between the two diagnoses, such that the less favorable attitudes would be toward applicants with Down syndrome, as compared to the autistic applicant, and the control applicant, who had no disability mentioned. Findings will report differences between the ratings.

## **2:15 – Adult Attachment and the Perception of Angry Faces**

Author: Janika Gremlund

Sponsors: Richard Beans

Institution: Greenville University

According to Adult Attachment Theory (Bartholomew & Horowitz, 1991), insecurely attached adults will display unhealthy attachment behaviors particularly when stressed. Attachment style has been associated with certain patterns of emotion regulation and therefore, may play a role in emotion perception. The present study explored the effects of the attachment style on perception of facial expressions. Participants were randomly assigned to two groups, the control group was asked to view a slideshow of a face transitioning from angry to neutral. Participants were asked to indicate the frame where the initial emotion had left the face. The experimental group viewed a clip from the film, *Woman Thou Art Loosed*, in order to induce a distressing state before viewing the faces. It is hypothesized that under distress, participants with insecure attachment styles will report the angry face lingering longer than those with secure attachment styles. Results and implications will be discussed.

## **2:30 – the Effects of Performance Feedback and Extrinsic Rewards on Efficacy and Productivity**

Author: Brooke Goodyear

Sponsor: Richard Beans

Institution: Greenville University

The purpose of this study was to investigate the effects of extrinsic rewards and performance feedback on productivity and self-efficacy. This study was conducted through a timed Lego model building task with participants from a small liberal arts university randomly assigned to one of four groups (a) extrinsic reward and high performance feedback; (b) no extrinsic reward and high performance feedback; (c) extrinsic reward and low performance feedback; (d) no extrinsic reward and low performance feedback. Participants were evaluated on their productivity (number of models built) and self-efficacy following each session. The hypothesis tested was that individuals given the opportunity to receive an extrinsic reward as well as provided high performance feedback would show the highest self-efficacy and productivity. Conversely, individuals given the opportunity to receive an extrinsic reward as well as provided low performance feedback would show the lowest self-efficacy and productivity. Results and implications will be discussed.

## **2:45 – Fear Appeals and Moral Appeals: A Comparison of the Persuasion Tactics on Vaccinations and Texting and Driving**

Author: Caleb McKay

Sponsor: Richard Beans

Institution: Greenville University

When people are presented with a fear appeal or a moral appeal, which will they respond to more significantly? Previous research suggests that fear appeals are less effective in changing behavior than moral appeals. An experiment was conducted at Greenville University comparing the effects of a fear appeal and a moral appeal in the context of persuading participants to receive a vaccination and to avoid texting and driving. Participants were given a prompt that either used a fear appeal or a moral appeal to persuade them to receive a vaccination and to avoid texting and driving. The hypotheses stated that the fear appeal would cause higher anxiety and perceived susceptibility of illnesses and texting and driving, a lower motivation to receive a vaccination, and a higher motivation to text and drive. Even though the results were insignificant, patterns were found that hold a potential for future research to explore.

Afternoon Paper Session C  
1:30 - 3:00 PM  
Sanders Hall Room S207  
**SOCIAL/PERSONALITY**

**1:30 – Differences in Self-Perceived Creativity Among Undergraduate Majors**

Authors: Samantha Broms & Taren Elder

Sponsors: Ann Fulop

Institution: Eureka College

We extended a study by Pringle, DuBose and Yankey (2010) to explore the relationship between self-perceived creativity and college major. Eighty-three students from a small college were selected from 6 distinct major groups. Participants were given a questionnaire about their age, gender identity, GPA, grade level, major, that included a seven point Likert scale on self-perceived creativity. Gough's Creative Personality Scale was used to assess creativity. An ANOVA found a statistically significant difference among college major and creativity. Post-hoc analysis in the form of LSD analysis found significantly higher levels of creativity in Fine and Performing Arts and Humanities majors and lower levels in Business and Social Science majors. The small effect sizes of both tests prevent the results from having meaningful significance, but knowledge of the differences in self-perceived creativity according to major could have significant implication for curricular change and college recruitment.

**1:45 – Mental Illnesses as Relationship Dealbreakers**

Author: Jordan Morton & Tatiana Neives

Sponsor: Guy Boysen

Institution: McKendree University

People choose mates by selecting positive characteristics and avoiding negative characteristics called relationship dealbreakers. The current research explored mental illnesses as relationship dealbreakers. Schizophrenia, bipolar disorder, and sociopathy are frequently cited dealbreakers. Evaluations of mental illnesses as dealbreakers tend to be more severe among women and for long-term relationships.

**2:00 – Students' Definition of Academic Success**

Author: Stephanie Sager

Sponsor: Ann Fulop

Institution: Eureka College

This study asks college students open-ended questions about what qualities, persons, and other factors are important to the academic success of an individual. It then compares the answers given by first-generation students to multi-generational students to see what the differences are, if any, between these two groups. The findings show that there are many differences between what these two groups view as the most important factors that contribute to academic success, but there are also some factors that the two groups can agree on. This research can be used to further investigate how first-generation students view success and can potentially aid in creating better programming for first-generation students to help them succeed in college.

**2:15 – How Anxiety is Effected by Meaning and Chance**

Authors: Marissa Somodi, Aida Juarez & Heather Foster

Sponsors: David Lane

Institution: Western Illinois University

Based on previous research, researchers predicted that the relationship between meaning and anxiety would be moderated by locus of control, such that for individuals with an external locus of control, meaning is positively correlated with anxiety. Fifty-eight undergraduate psychology students participated in an online survey. Participants answered questions about how much meaning they perceived in their life, how anxious they were,



and to the extent which they think that chance events control their lives (external locus of control). The results were that presence of meaning was negatively correlated with anxiety. A second relationship was that increases in perceiving chance as controlling life led to higher levels of anxiety. No interaction was observed between presence of meaning and chance locus of control. Practical limitations and future applications of these findings are considered.

### **2:30 – Depression Goes Deeper: The Relationship Between Depression and Tone in Narrative Identity**

Authors: Ashlyn Maher

Sponsor: Tara McCoy

Institution: Monmouth College

The relationship between narrative tone, the overall emotionally-driven internal voice of individuals' narratives, and depression was analyzed in the narrative identities of 150 participants (69% female, Mage=20.49). Participants were asked to describe a self-defining memory (i.e., a significant experience). These stories were then coded for tone on a 1-5 scale (lower scores indicating more negative emotions). The goal of this correlational study was to determine if there was a link between whether scores on a depression scale and the tone within their narratives. Results indicated that there was a negative relationship between depressive symptoms and tone, such that, higher scores on depression were related to lower scores in negative tone. Narrative identity is a relatively new division of personality psychology and this study demonstrates that narrative psychology can and should be used to gain further insight to the cognitive, emotional, and behavioral components of mental illness.

### **2:45 – The Effects of Helicopter Parenting on College Students' Mental Well-Being and Quality Relationships with Parents and Peers**

Author: Carley Interrial

Sponsors: Kateryna Sylaska

Institution: Monmouth College

Research has found that inappropriate parental involvement termed as “helicopter parenting” has been associated with negative outcomes in emerging adults' psychological well-being and adjustment. The purpose of this study was to further examine the relationship between helicopter parenting and four variables related to college students' psychological and social development (e.g, alcohol use, trait anxiety and relationship quality with parents and peers). Undergraduate student participants (N=117) completed an online survey in exchange for extra credit and online through my personal social media. Correlational analyses indicated that increased helicopter parenting was associated with higher levels of alcohol use ( $r = .524$ ) and trait anxiety ( $r = .565$ ) but was not related to relationship quality with either parents ( $r = -.118$ ) or peers ( $r = .162$ ). The findings continue to support the association between helicopter parenting and negative outcomes in psychological development, and found no relation to social development.

Afternoon Paper Session D  
1:15-3:00p.m.  
Sanders Hall Room S108  
**COGNITIVE**

**1:30 – Free Recall vs Cued Recall: Tip-of-the-Tongue Phenomenon**

Author: Lizdriana Fajardo

Sponsor: Richard Beans

Institution: Greenville University

This study examined whether cued recall works best with letters or pictures. According to past research, the tip-of-the-tongue phenomenon states that memory retrieval occurs better when a cue is given, compared to free recall (Freedman & Landauer, 1966). This study seeks to address what type of cue assists memory retrieval more effectively. This concept has not been thoroughly examined in previous research. A convenient sample of undergraduates participated by naming the capitals of US states. Participants were first asked to answer without a cue, which constitutes free recall. This served as a control to determine if it was the type of cue that ultimately helped with memory retrieval. After a minute, the participant could not come up with the answer, the corresponding cue was given. Cues are either the first letter of the capital or the outline of the state being asked. The results of this experiment will be discussed.

**1:45 – Music and Task Switching: Does Playing an Instrument Enhance Attentional Task Switch?**

Authors: Raina Isaacs & Rebecca Chicosky

Sponsor: Gerald McDonnell

Institution: McKendree University

The purpose of the current study was to examine whether instrumental music experience enhances attentional control and task switching abilities compared to non-musicians. Participants first completed the STROOP task (Stroop, 1935), where they were required to state the font color in which a word is written, while ignoring the meaning of the word. They then completed a task switching paradigm (Rogers & Monsell, 1995) that required participants to respond to number/letter combinations with alternating task demands. We predict that individuals with higher levels of instrumental music experience will demonstrate faster and more accurate performance compared to their non-musician counterparts. The results may further promote the implementation of music based classes in various school settings.

**2:00 – The Effects of Note-taking on Memory Recall**

Author: Stephanie Christian

Sponsor: Richard Beans

Institution: Greenville University

This study measured the effects that taking notes by hand or taking notes on a computer has on the recall of students. This study used a two-group design. Each group pertained of randomly assigned students from Greenville University. Participants were asked to watch a YouTube video while taking either longhand notes on a piece of notebook paper, or laptop notes in a Microsoft Word document. The participants were then asked to study their notes for five minutes and then complete a recall questionnaire. Studies have shown that students who take longhand notes perform significantly better on recall tests compared to their peers who take laptop notes (Mueller & Oppenheimer, 2014). The hypothesis of this study was that students who take longhand notes will perform significantly better on the recall questionnaire than students who take laptop notes. Results of this study will be discussed on a later day.

## **2:15 – Visual Processing and Body Image in Eating Disorders: Examining the Role of Central Coherence**

Author: Stephanie Saey

Sponsor: Marsha Dopheide

Institution: Monmouth College

Body dissatisfaction is a key component in the diagnosis of Anorexia Nervosa (AN). In fact, it is presumed that body perception problems could be of greater significance in the development of AN than other symptoms. Body image issues may arise through abnormalities in an aspect of visual processing known as central coherence, where individuals with weak central coherence process images fragmentarily rather than holistically. This study investigated the relationship between central coherence, body dissatisfaction, and eating attitudes. An online survey was administered through social media. The survey included questions about eating behaviors and body shape preoccupations. Additionally, an embedded figures paradigm served as a measure of central coherence. Neither eating attitudes nor body shape preoccupation had any relationship with central coherence. Findings demonstrate the complexity of body perception and the need for further investigation into body image dissatisfaction in the context of visual processing and eating disorders.

## **2:30 – The Mozart Effect: How Time Delay Affects Physiological Arousal and Test Performance**

Author: Kalei Swogger

Sponsor: Richard Beans

Institution: Greenville University

Known as the Mozart Effect, research shows that test performance increases after listening to music. This effect is now attributed to a temporary increase in physiological arousal and mood. The purpose of the present study is to test the duration of the Mozart Effect. The hypothesis states that a time delay between listening to music and test taking will decrease test performance. Sixty-two participants were randomly assigned to three groups. Each group completed a pretest of verbal ability taken from a GRE practice set. Participants then listened to two minutes of a popular song by Bruno Mars. Group 1 (N=18) took a post-test immediately following the music, replicating previous studies. Groups 2 and 3 took the post-test after a five-minute time delay, where Group 2 (N= 20) engaged in free writing and Group 3 (N= 24) sat in silence. Results and implications will be discussed.

# Thank You!

**We would like to thank the students and faculty from the following schools for their participation:**

Columbia College  
Greenville University  
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William Penn University

McKendree University  
Western Illinois University  
Knox College  
Southern Illinois University -  
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