

26<sup>th</sup> Annual  
Laurel Highlands Undergraduate  
Psychology Conference

April 13, 2024

450 SCHOOLHOUSE ROAD ♦ JOHNSTOWN, PENNSYLVANIA

**26<sup>th</sup> Annual Laurel Highlands  
Undergraduate Psychology Conference**

**University of Pittsburgh-Johnstown**

<b>Time</b>	<b>Program Schedule</b>
9:00-9:45 am	Registration & Refreshments (Blackington Hall Lobby)
9:45-10:00 am	Welcome (131 Blackington Hall) <i>Dr. Steven Stern, University of Pittsburgh-Johnstown</i>
10:00-11:00 am	Invited Address (131 Blackington Hall) <i>Dr. Dean Salisbury, University of Pittsburgh</i> Auditory Hallucinations in Psychosis: Brain Imaging to Develop Novel Treatments
11:00 am-12:20 pm	Research Oral Presentations (131 Blackington Hall)
12:20-1:30 pm	Lunch (Student Union)
1:30-2:30 pm	Research Poster Presentations (Blackington Hall Lobby)
2:30 – 3:30 pm	Research Oral Presentations (131 Blackington Hall)

## **Acknowledgments**

Thanks to many people for their administrative support and advice, especially Tracey Pham, the UPJ Psychology Club, and the UPJ psychology faculty.

Thanks to all the conference organizers from previous years who helped with information and advice.

Finally, thanks to all the speakers, faculty, and students who fill this conference with energy, intelligence, creativity, and critical thinking every year.

## **Conference Background and History**

The Laurel Highlands Undergraduate Psychology Research conference was founded in 1998. The conference provides a forum for undergraduate students in Psychology programs across the region to present their research to fellow students and faculty members. Over the years, we have had numerous students participate from various institutions and we have had many respected figures in the field of Psychology provide keynote addresses for the conference. On the next pages are listed the keynote speakers and participating institutions we have had since our founding.

## Past Speakers

- 1998 Dr. Richard Moreland, University of Pittsburgh
- 1999 Dr. David Myers, Hope College
- 2000 Dr. Julie Fiez, University of Pittsburgh
- 2001 Dr. Edward S. Shapiro, Lehigh University
- 2002 Dr. George Spilich, Washington College
- 2003 Dr. Clancy Blair, Pennsylvania State University
- 2004 Dr. Peggy Fischer, Office of Inspector General,  
National Science Foundation
- 2005 Dr. Kristen Suthers, Johns Hopkins University
- 2006 Dr. Irene Frieze, University of Pittsburgh
- 2007 Dr. Christopher S. Martin, University of Pittsburgh
- 2008 Dr. Nicholas DiFonzo, Rochester Institute of Technology
- 2009 Dr. Jessica Everly, University of Pittsburgh at Greensburg
- 2010 Dr. Charles Heyser, Franklin and Marshall College
- 2011 Dr. Ellen Frank, University of Pittsburgh
- 2012 Dr. Stephen Wilson, Pennsylvania State University
- 2013 Dr. Derek Leben, University of Pittsburgh at Johnstown
- 2014 Dr. Stephanie Jimenez, University of Pittsburgh at Johnstown
- 2015 Dr. Sharon Tkacz, Kent State University, Geauga
- 2016 Dr. Jennifer Roth, Carlow University
- 2017 Dr. Amy Herschell, West Virginia University
- 2018 Dr. Jill Cyranowski, Chatham University
- 2019 Dr. Shannon D. Donofry, University of Pittsburgh
- 2021 Dr. Erin J. Reifsteck, University of North Carolina
- 2022 Dr. Idan Shalev, Pennsylvania State University
- 2023 Dr. Carla Chugani, University of Pittsburgh

## **Past and Present Participating Institutions**

Anderson University  
Arcadia University  
Bowling Green University  
Carlow University  
Carnegie Mellon University  
Chatham University  
Cleveland State University  
Dickinson College  
Drexel University  
Franciscan University of Steubenville  
Franklin and Marshall College  
Indiana University of Pennsylvania  
Juniata College  
Kutztown University  
Marywood University  
Mount Aloysius College  
Otterbein College  
Penn State University at Altoona  
Penn State University at Fayette  
Penn State University at University Park  
Penn West University - California  
Penn West University - Edinboro  
Saint Francis University  
Saint Joseph's University  
Saint Vincent University  
Seton Hill University  
Shippensburg University  
Temple University  
Thiel College  
University of North Carolina  
University of Pittsburgh-Bradford  
University of Pittsburgh-Greensburg  
University of Pittsburgh-Johnstown  
University of Pittsburgh-Oakland  
University of Charleston  
University of Minnesota  
Wartburg College  
Washington and Jefferson College  
Waynesburg University  
West Liberty State College  
West Virginia University  
Wilkes University

**Invited Address (10:00 – 11:00 am)**

***Auditory Hallucinations in Psychosis: Brain Imaging to Develop  
Novel Treatments***

**Dean Salisbury, PhD**

Auditory hallucinations are a severe and debilitating symptom in psychotic disorders (such as schizophrenia) that affect over 70% of individuals and are sometimes resistant to antipsychotic medication. Using brain imaging methods including MRI, electroencephalography, and magnetoencephalography, several brain regions appear to be related to hearing voices. These findings will be presented, as well as new experimental non-invasive brain stimulation treatments targeting these areas that appear to reduce auditory hallucinations.

## Research Oral Presentations (11:00 am - 12:20 pm)

### Paper #1 (11:00)

Title: Adverse Childhood Experiences and Risk-Taking Propensity as Measured by a Risk-Taking Game  
Authors: Zoe Belknap & Hannah Koty  
Affiliation: Waynesburg University  
Advisor: Dr. Jenny Jellison

Babad et. al. (2021) found a positive correlation between cumulative ACE (Adverse Childhood Experiences) scores and risk-taking propensity in emerging adults. In other words, the more adverse childhood experiences one experiences (physical abuse, neglect, etc.) the more likely they are to take risks to receive potential rewards, despite potential negative outcomes. However, this study only measured risk-taking on a self-report measure. We sought to test the criterion-related validity of these findings using a behavioral measure of risk-taking, Jenga. Participants played Jenga individually for 15min. For every block they removed and placed on top, 10 cents was added to their “bank”. If the tower fell, they lost everything. If they decided to stop at any time, they could “cash out”. ACE scores were then anonymously obtained. The hypothesis was not supported, as the correlation between ACE scores and number of risks was not significant.

### Paper #2 (11:15)

Title: Young Adult Personality Impacts Sleep Disruption During the COVID-19 Pandemic  
Authors: Haley A. Schultz & Kathleen W. Reardon  
Affiliation: Cleveland State University  
Advisor: Dr. Kathleen W. Reardon

The COVID-19 pandemic has had a turbulent impact on young adults' development during the critical time of their transition into emerging adulthood. Sleep disruption is a crucial factor that may amplify risk for mental health challenges during this developmental period. However, the pandemic's impact on the sleep patterns of young adults has been inadequately addressed by research. In the present study ( $N = 352$ ; 71.3% female) 18-25-year-olds ( $M_{\text{age}} = 21.07$  years) reported on their sleep problems and personality through an online study collected during the pandemic. Results suggest that individuals high in Neuroticism experienced significantly more sleep disruption during this time ( $r = .48, p < .001$ ), whereas other traits such as Conscientiousness may have buffered the impact of the pandemic on sleep disruption ( $r = -.25, p < .001$ ). These observations suggest that personality traits may amplify or protect against disruptions to sleep patterns, with important implications for the mental health of young adults.

**Paper #3 (11:30)**

Title: Is Empathy a Better Predictor of Liberal or Conservative Ideology?  
Author: Tessa Lynn  
Affiliation: Pennsylvania State University, Fayette Campus  
Advisor: Dr. Aris Karagiorgakis

The political divide in the U.S. has only become wider in recent years. One explanation for this political polarization from a psychological perspective is the capacity at which a person experiences empathy. The current study investigated empathy's role in predicting political ideology, alongside gender identity. It was hypothesized that those who score higher in liberal ideology will also score higher in empathy, while those who hold more conservative beliefs will score lower. It was also predicted that women would score higher in both empathy and liberal ideology than men. A total of 63 students received a 34-item questionnaire in order to measure their political ideology and empathy. While empathy was shown to be significantly and positively correlated with liberal ideology, it was not shown to be as strong of a predictor of conservative ideology. The hypothesis women would score higher in both liberal ideology and empathy was supported.

**Paper #4 (11:45)**

Title: An Exploratory Study of the Relationship Between College Major and Enneagram Personality Type  
Authors: Anna Rape & Kimberly Trump  
Affiliation: Waynesburg University  
Advisor: Dr. Jenny Jellison

The Enneagram Personality Typology is a personality assessment that is growing in popularity, particularly in the workplace, where it can be used to assess key workplace attitudes and cognitions (Sutton, Allinson, & Williams, 2013). The current study sought to explore a possible relationship between Enneagram personality type and chosen major. Students from the university's 5 largest majors (plus "Undecided") completed an online version of the Enneagram and reported their personality type, major, and academic year. No relationship was found between personality type as measured by the Enneagram and chosen major. Possible reasons will be discussed.

**Paper #5 (12:00)**

Title: The Relationship Between Environment and Sexual Identity Concealment in Working College Students  
Author: Olivia Spotto  
Affiliation: Pennsylvania State University, Fayette Campus  
Advisor: Dr. Elaine Barry

Previous studies have shown that there are still levels of discrimination against LGBTQ+ individuals in the work and school settings. Although previous studies show many students work, the environments of school and work have not been directly compared to determine where LGBTQ+ individuals perceive more discrimination. Levels of sexual identity discrimination and concealment in 216 working college students were assessed. Results found a significant positive correlation between perceived LGBTQ+ discrimination and sexual identity concealment in both environments, suggesting LGBTQ+ individuals are more likely to conceal their sexual identity when they are interacting within environments they perceive as discriminatory. Future research is needed because understanding perceived discrimination is crucial to making environments more accepting and welcoming to LGBTQ+ individuals as well as reducing negative effects such as nonideal living, working, and learning conditions.

## Research Poster Presentations Session #1 (1:30 - 2:30 pm)

### Poster #1

Title: Can Hippocampal Volume Predict Future Performance on a Spatial Memory Task?  
Authors: Monica Bailey, Regina Leckie, Ph.D., Mark Scudder, Ph.D., & Peter Gianaros, Ph.D.  
Affiliation: University of Pittsburgh  
Advisor: Dr. Regina Leckie

Previous research indicates a relationship between brain volume and cognitive function throughout aging. The hippocampus is a target region for examining this relationship, as it is highly associated with spatial memory. The current study investigates hippocampal volume as a predictor of cognitive function by examining MRIs taken at variable times before a spatial memory task. Participants ( $N = 180$ , mean age = 45 yrs,  $SD = 8.4$ , 60 % female) completed a 3T MRI MPRAGE scan with volumetric data calculated. Participants then completed a computerized spatial pattern recall task between 1 to 42 months later (mean time 19.6 months,  $SD = 7.0$ ). Using regression analysis, no significant relationship was found between total accuracy on the task and either duration of time or hippocampal volume. This result indicates current brain volumes are necessary to predict cognitive functions due to neuroplasticity. This effect may be more impactful in older populations who experience greater changes in brain volume.

### Poster #2

Title: Can How You Were Parented Influence Your Ability to Self-Regulate?  
Author: Sarah Bielawski  
Affiliation: Pennsylvania State University, Fayette Campus  
Advisor: Dr. Aris Karagiorgakis

Previous studies have found children's self-regulatory abilities impacted by the way they are parented. The relationship between the authoritative, permissive, and authoritarian parenting styles and self-regulation is explored in this study. It was hypothesized that there would be a positive correlation between authoritative parenting and self-regulation; authoritative parenting and GPA; and self-regulation and GPA. It was also hypothesized that there would be a negative correlation between permissive parenting and self-regulation and authoritarian parenting and self-regulation. Undergraduate students completed a survey to find that both permissive and authoritarian parenting influence self-regulatory ability, as well as significant differences between genders on permissive and authoritarian parenting.

### **Poster #3**

**Title:** Investigating Gender as a Moderator of Rumination and Depressive Symptom Severity Amongst Those with Depressive Disorders  
**Authors:** Hannah K. Mikelis, Bailey D. Kielinski, Mary Blendermann, M.S., & Lauren S. Hallion, Ph.D.  
**Affiliation:** University of Pittsburgh  
**Advisor:** Dr. Lauren S. Hallion

Depressive rumination (also called brooding) is a major mechanism of depressive disorders. As depression is more common in women than men, our study considered whether the relationship between brooding and depressive symptoms might also be stronger in women. We hypothesized that there would be a strong positive relationship between depressive symptom severity and brooding, and that this positive relationship would be moderated by gender. Participants were 132 adults [LSH1] who completed widely validated measures of depressive symptoms and brooding. We found a small but highly significant correlation between brooding and depressive symptom severity ( $r = 0.18, p < .001$ ), which was not moderated by gender ( $b = 5.41, SE = 5.57, p > 0.05$ ). Given the non-significant moderating effect of gender, our results suggest that brooding may play a similar role in the onset and maintenance of depression in men and women.

### **Poster #4**

**Title:** Literature Review of the Impact of Drug and Alcohol Case Management Services upon Positive Recovery Outcomes for Individuals Diagnosed with Addiction Disorders  
**Author:** Jennifer Drass  
**Affiliation:** Mount Aloysius College  
**Advisor:** Dr. Antoinette (Petrazzi) Woods

The purpose of this literature review is to examine the existing scholarly literature regarding the impact of Drug and Alcohol Case Management Services upon positive recovery outcomes for individuals diagnosed with addiction disorders. First, I will operationally define and identify examples of Drug and Alcohol Case Management Services as well as positive recovery outcomes for the target population, individuals diagnosed with addiction disorders. Next, I will provide a succinct overview in the categories of history, and major research contributions, as well as current status of the literature, including advantages and limitations, regarding the impact of Drug and Alcohol Case Management Services upon positive recovery outcomes for individuals diagnosed with addiction disorders. Finally, I will conclude by reviewing gaps in the scholarly literature and potential needs for future research.

**Poster #5**

Title: Investigating the Correlation Between Subcategories of Obsessive Thoughts and Desire for Control  
Authors: Humna Khawaja, Maria Guarino, Lauren Hallion, Ph.D., & Mary Blendermann  
Affiliation: University of Pittsburgh  
Advisor: Dr. Lauren Hallion

With a sample of 245 undergraduate students, we aim to investigate the correlation between desire for control and the subcategories of obsessive thoughts, in addition to overall score, through the Desirability of Control scale and Obsessional Belief Questionnaire-44 (OBQ). The subcategories of obsessive thoughts studied include, perfectionism and intolerance for uncertainty, responsibility and harm, and importance and control of thoughts. Do those with high desire for control exhibit greater propensity for one subcategory of obsessive thoughts?

**Poster #6**

Title: ICT and Virtual Reality in Classrooms: Exploring College Professors' Perceptions of ICT and the Use of Virtual Reality as a Learning and Teaching Tool  
Authors: Quynh Nguyen & Royal Yu  
Affiliation: Juniata College  
Advisors: Dr. Territa Poole & Dr. Katy Johanesen

Extended applications of Information and Communication Technology (ICT) and Virtual Reality (VR) across academic disciplines have surged in recent years. However, at liberal arts colleges, there has been little research on how faculty members perceive the use of ICT and VR in teaching. Therefore, we conducted this study to understand professors' perceptions of using ICT and VR in education, using the model proposed in the Unified Theory of Acceptance and Use of Technology (UTAUT) (Vankatesh et al., 2017). We found an association between SI Institutional Support and Facilitating Conditions ( $p = 0.004$ ). About 87% of the participants have not used VR in teaching before, and more than 60% are not familiar with VR in education. Some barriers for implementing VR include time, cost and inadequate training. Regardless of these difficulties, 42% indicate intention to use VR for educational purposes. Participants suggest example use cases of VR be provided to facilitate VR adoption.

**Poster #7**

Title: Cortical Thickness and Age as Potential Mechanisms in the Heart Rate Variability-Cognition Nexus: A Moderated Mediation Analysis

Authors: Julia James, Regina Leckie, Ph.D., Mark Scudder, Ph.D., & Peter Gianaros, Ph.D.

Affiliation: University of Pittsburgh

Advisor: Dr. Regina Leckie

An existing relationship between heart rate variability and cognitive function has been previously established. The current study seeks to investigate cortical thickness and age as possible mechanisms behind this relationship. Participants (mean age =43 yrs,  $SD = 8.5$ , 60% female) completed a 3T MRI MPRAGE scan where volumetric data and heart rate variability were calculated, in addition to a processing speed cognitive task outside of the scanner. A Preacher-Hayes moderated mediation model was applied to determine if cortical thickness mediated the relationship between heart rate variability and processing speed performance, with age as a moderator. Heart rate variability significantly predicted processing; however, no significant moderation or mediation was found with age or cortical thickness, respectively. Despite lack of significance in cortical thickness, future studies could examine alternative cognitive tasks or other brain regions responsible for processing speed to determine which factors contribute to the established relationship.

**Poster #8**

Title: Relationship Between Music Listening and Need for Cognition on Stress

Authors: Sydney Clements, Jenna Madonna, & Emma Zawalnicki

Affiliation: Saint Francis University

Advisor: Dr. Marnie Moist

The need for cognition and music listening relates to individuals' levels of stress while completing everyday tasks. A survey was utilized to collect data for X undergraduates. Based on survey answers to the Need for Cognition Scale (Cacioppo et al., 1984), students were separated into groups of high cognition and low cognition. Participants were asked to imagine stress with and without music using six survey vignettes and self-rate the stress levels during the imagined scenarios. It was found that high need for cognition readers showed a decrease in stress for all overall tasks, compared to low need for cognition readers. It was also determined that the addition of music increased stress in both high cognition and low cognition groups. The findings suggest that low need for cognition combined with listening to music may put one at risk for higher stress. Keywords: cognition, music listening, stress, task, undergraduate students

**Poster #9**

Title: Investigating the Association between Nonjudgmental Mindfulness and Facets of Anger Rumination

Authors: Henry Gifford, Mary Blendermann, M.S., & Lauren S. Hallion, Ph.D.

Affiliation: University of Pittsburgh

Advisor: Dr. Lauren Hallion

There are multiple dimensions of both mindfulness and anger rumination. Previous research has exhibited a negative correlation between high dispositional and/or practiced mindfulness and anger rumination levels. One facet of mindfulness, nonjudgmental, has a great effect on anger rumination reduction, which has been shown to be related to hostility and aggression. Research on forgiveness has identified “revenge thinking” and “thoughts of angry memories,” which are both dimensions of anger rumination, as being strong mediators between mindfulness practice and increased forgiveness. The research presented by this poster explores the breakdown of mindfulness dimensions, specifically nonjudgmental mindfulness, and its relationship with dimensions of anger rumination, especially “revenge thinking” and “thoughts of angry memories,” in an attempt to further understand the mechanisms between these variables and increase understanding potentially in the field of forgiveness research.

**Poster #10**

Title: Does Empathy Influence Attitudes Towards Disabled People?

Author: Sydney Knicely

Affiliation: Pennsylvania State University, Fayette Campus

Advisor: Dr. Aris Karagiorgakis

People express levels of empathy or sympathy for individuals in need. The amount of empathy affects their attitudes toward people with disabilities. The current study investigates the relationships between levels of empathy, gender, and attitudes towards individuals with disabilities. It is hypothesized that students who score higher in empathy will also have more positive attitudes towards individuals with disabilities. It is also hypothesized that women will be more empathetic and have more positive attitudes than men. Ninety-six participants completed a 36-item survey on level of empathy and attitudes towards people with disabilities. The hypothesis that a person’s levels of empathy and their attitudes toward those with disabilities was supported. This study shows that a person’s level of empathy is related to attitudes toward disabled people, meaning that the more empathy a person has, the more positive attitudes they will have toward others with disabilities.

**Poster #11**

Title: Suicidality Among Transgender Individuals  
Authors: Logan Krueck & Elisa Hernandez  
Affiliation: Bowling Green State University  
Advisor: Dr. William O'Brien

This study examines the effect of unique experiences and stressors on the rate of suicidality among transgender individuals, as well as explores the intersectional identities of transgender individuals and their effects on the suicidality rates. Primary data was collected via an online, 23-point survey, with an emphasis on gender identity, sexual orientation, socioeconomic status, religious affiliation, race/ethnicity, and peer/family acceptance. T-tests run during analysis revealed that transgender participants and participants who reported queer sexuality showed higher rates of having attempted suicide and experiencing suicidal ideation. Regressions were run and determined that a queer sexual orientation and transgender identity were, individually, predictors of both suicidal ideation and suicide attempts. Religious affiliation, gender identity, and sexual orientation were correlated with past suicide attempts and suicidal ideation. Results were consistent with prior research and literature and demonstrates the effect of intersecting religious identities as a significant factor in transgender and queer suicidality.

**Poster #12**

Title: Interteaching: The Effects of Each Component on Academic Success  
Author: Juliana Butz  
Affiliation: University of Pittsburgh at Johnstown  
Advisor: Dr. Stephanie Jimenez

Interteaching has three key components: preparatory guide, group discussion, and clarifying lecture. Only two laboratory studies have been conducted to determine the efficacy of interteaching. One conducted a component analysis suggesting the group discussion and clarifying lecture increased quiz scores more than the prep guide. The goal of the present study was to add to this area by parsing out the effects of the group discussion and clarifying lecture on academic success.

**Poster #13**

Title: Understanding the Associations Between Rumination and Spontaneous vs. Deliberate Mind-Wandering

Authors: Lucca Spence, Hannah Mikelis, Mary Blendermann, M.S., & Lauren S. Hallion, Ph.D.

Affiliation: University of Pittsburgh

Advisor: Dr. Lauren S. Hallion

Given that spontaneous mind-wandering has been found to be associated with both ADHD and OCD, two disorders characterized by deficits in control, our study intends to examine rumination alongside deliberate and spontaneous mind-wandering. As both rumination and spontaneous mind-wandering have associations with poor attentional control and can be unintentional, we hypothesize that rumination will reflect a stronger relationship with spontaneous mind-wandering. The current study used data from 284 participants, recruited through a crowdsourcing platform, who completed two widely used validated measures of mind-wandering and rumination. As predicted, our analysis found a positive correlation between spontaneous mind-wandering and rumination ( $r = 0.48, p < 0.001$ ), with a lack of an observed relationship between deliberate mind-wandering in rumination ( $r = 0.074, p = 0.21$ ). These results have implications for further understanding the intentionality behind rumination and attentional control within the context of thought constructs.

**Poster #14**

Title: The Effects of Mortality Salience on Attitudes Towards Police Legitimacy

Author: Trevor Shelly

Affiliation: Kutztown University of Pennsylvania

Advisor: Dr. Thomas Robinson

Prior research has shown that when mortality is made salient, people are more likely to uphold and defend certain cultural worldviews (i.e. widely held beliefs about the world). The existing literature suggests that this is a way of avoiding the psychological discomfort that can occur when one is made aware of their own mortality. Prior research on mortality salience has examined its effect on political beliefs such as attitudes towards capital punishment, military intervention, and specific political candidates. Attitudes towards police legitimacy have not yet been examined in relation to mortality salience, which is why the present study is being conducted. This study aims to examine two distinct methods of making mortality salient. The first method involves participants responding to open-ended prompts relating to their own mortality. The second method involves reading and responding to a hypothetical scenario in which they are trapped in an apartment fire. This study hypothesizes that when the first method is used, attitudes towards police legitimacy will be more favorable than when mortality is not salient. Additionally, the present research hypothesizes that when the second method is used, attitudes towards police legitimacy will be less favorable than when mortality is not made salient.

**Poster #15**

Title: Sleep Disturbances and its Relationship with Memory Problems and Academic Performance  
Author: Chloe Kalp  
Affiliation: Pennsylvania State University, Fayette Campus  
Advisor: Dr. Aris Karagiorgakis

Many studies have been completed on how sleep can affect different types of memory, and the current study investigated student's self-report of their sleep quality, their self-reported memory and how sleep and memory may be related to academic performance. It is hypothesized that students with poor sleep quality will also report a poor memory. Also, it is hypothesized that students with poor sleep quality will have lower GPAs, and students who report to have a good memory will report a higher GPA. A total of 43 participants took a 23-item survey that measured sleep disturbances and memory problems. There were no significant correlations found between memory problems and sleep disturbances, memory problems and GPA, or sleep disturbances and GPA. There was a significant difference between students majoring in social sciences and those outside the social sciences on memory problems. Students majoring in social sciences reported better memory than non-social science students. This study did not have the expected effect on both sleep disturbances and memory problems on students' academic performance. Keywords: sleep disturbances, memory problems, and academic performance

**Poster #16**

Title: Examining Gender-Based Influences of Parental Number Talk in the Home  
Authors: Nandini Rastogi, Alex Silver, & Melissa Libertus, Ph.D.  
Affiliation: University of Pittsburgh  
Advisor: Dr. Melissa Libertus

Parent's home math engagement is important for their children's math skill development prior to school entry (Daucourt et al., 2021). Both the frequency and type of parental number talk is related to children's math performance (Gunderson & Levine, 2011). This study presents novel findings in how mothers and fathers compare in their frequency and categorical use of number talk with their toddlers during semi-structured interactions. In a sample of 133 children aged 2-3 years and their mothers and fathers, we found that mothers and fathers used relatively similar proportions of number talk,  $t(132) = 1.92, p = 0.057$ . Both mothers and fathers most frequently used quantifiers, labeling, and counting when discussing numerical concepts, but neither parents' frequency of number talk significantly predicted children's numeracy scores. Moreover, fathers' use of labeling set sizes significantly predicted toddlers' number skills ( $r = 0.22, p = 0.011$ ), and future research should address how this may contribute to children's number knowledge longitudinally.

## Research Oral Presentations (2:30 - 3:30)

### Paper #1 (2:30)

Title: A Re-Evaluation of Paranormal Beliefs and Estimated Likelihood of Life Events Following the COVID-19 Pandemic  
Authors: Abigayle Geisel & Lauren Royesky  
Affiliation: Waynesburg University  
Advisor: Dr. Jenny Jellison

According to the psychodynamic functions hypothesis (Irwin 2009), paranormal beliefs (PB) arise from a need to reduce the anxiety caused by a chaotic and unpredictable world. Roe & Bell (2016) found a positive correlation between PB and state and trait anxiety but only a modest positive correlation between PB and perceived likelihood of negative future events. However, their study was conducted prior to the COVID-19 pandemic, which was an unprecedented large-scale negative event. We proposed that the pandemic increased people's anxiety as it relates to their perceived likelihood of negative future events, subsequently strengthening the correlation between these variables and paranormal beliefs. We replicated Roe & Bell's (2016) study in a post-pandemic era. Participants anonymously completed the Revised Paranormal Belief's Scale, Beck's Anxiety Inventory, and our own Estimated Likelihood of Life Events Scale. Contrary to Roe & Bell (2016), results indicated a significant relationship between PB beliefs and perceived likelihood of negative future events, which was not mediated by anxiety. The correlation between PB and anxiety was nonsignificant.

### Paper #2 (2:45)

Title: Exploring the George-Floyd-Effect: Judgments of Sentences for Crimes by Race  
Author: Madison Richards  
Affiliation: Pennsylvania State University, Fayette Campus  
Advisor: Dr. Aris Karagiorgakis

With increased attention for racial inequity in the criminal system in recent years, we aimed to study if the race of the offender affects students' judgments of crime. Students ( $N = 94$ ) were presented with vignettes of theft or assault offended by a White or Black AI-generated person. Historically, people of color receive harsher sentences, but since the George Floyd protests, recent research suggests more equitable and non-racial sentencing decisions (i.e., the George-Floyd-effect). Regardless of their study major or general justice attitudes, students made racial-free judgments, awarding similar punishments to Black and White offenders. These results suggest that the present generation of university students might be able to play a role in achieving more equitable and just outcomes in the criminal justice system, but it is still important that future research investigates the possible lasting impact of the "George-Floyd Effect" – the reduction of racial bias disparity in sentencing.

**Paper #3 (3:00)**

Title: A New Way to Observe Behavior: ZooMonitor's Usefulness as an Observation Tool in the Lab and Beyond  
Author: Alyssa Baxter  
Affiliation: Saint Francis University  
Advisor: Dr. Shlomit Flaisher-Grinberg

ZooMonitor has gained popularity due to its utility and ease of use. This study sought to show the program's usefulness in the lab and shelter environments. Two groups of university housed shelter kittens were observed. Both groups had  $n = 6$  individuals, and test periods ran from four to eight weeks. Percentages of time each kitten spent performing a subset of behaviors, including Play, Locomotion, Maintenance, Resting, Social, and Other, was graphed. Kittens were grouped into several subgroups, including year of study, age at time of observation, and gender. Specific individuals were also highlighted for concern due to the presence of maladaptive behaviors or extreme shyness. Target behaviors were tracked over the observation periods. It was concluded that ZooMonitor can be a useful tool for observing behavior in a lab environment and that it has merit as a tool to be integrated into a shelter's repertoire of behavioral analysis tools.

**Paper #4 (3:15)**

Title: Emotional Contagion and Social Validation of Anger  
Authors: Shaina Stants & Marley Wolf  
Affiliation: Waynesburg University  
Advisor: Dr. Jenny Jellison

Individuals emotionally converge when placed in a group. Barsade (2002) found that a confederate behaving with frustration, impatience, and irritability caused the participants in the room to experience similar moods. Social validation is our tendency to look to others to know what behaviors are "right" or acceptable. The current study sought to test for the compounding effects of emotional contagion and social validation. In other words, when in a situation with a frustrated, impatient confederate, we predicted participants would not only catch the mood of the confederate but would be more likely to act on that mood when the confederate does so first. Participants were left in a room to "wait for the study to begin." In the experimental condition the confederate expressed increasing levels of frustration and eventually stormed out. While no participants left early in either condition, showing no evidence of emotionally converging with her, some participants in the experimental condition did appear to emotionally converge with each other, against her.

**Thank you for your participation, safe travels, and have a wonderful end of the school year!**