



a Celebration of
Scholarship
EDINBORO UNIVERSITY

April 1, 2015

Welcome: Greg Morrow

April 1, 2015

Dear Students, Faculty, Staff, and Guests,

It is my pleasure to welcome you to Edinboro University's second annual *Celebration of Scholarship*, recognizing a variety of student-faculty accomplishments. Students at Edinboro have a wide variety of opportunities open to them as they pursue their degrees. One of the most exciting of these is the chance to work collaboratively with our outstanding faculty and their fellow students on research and other forms of scholarship. Today's *Celebration of Scholarship* gives us the opportunity to both recognize the hard work and accomplishments of our students and their faculty mentors, and to connect with students and faculty from across the university. Too often we narrow our focus to our own departments and academic interests and we sometimes miss opportunities to expose ourselves to the many outstanding accomplishments occurring on campus. These accomplishments are certainly something to celebrate!

As I noted above, this is our second annual *Celebration of Scholarship*. If you were here with us last year, you may have noticed that we have made a few changes. Perhaps the most exciting of these is the fact that we were able to coordinate this year's event with the newly revived *Academic Festival* and I hope that we will be able to continue this collaboration in future years. The *Celebration of Scholarship* is, however, a work in progress. If you have suggestions, comments, or recommendations please don't hesitate to bring them to me or to any member of the *Committee for the Advancement of Undergraduate Research and Collaborative Scholarship*.

In closing, I feel very fortunate to be a part of a vibrant university with exceptional colleagues, students, and staff members and I hope that each of you feels this as well. Thanks to all of you for being a part of excellence at Edinboro!

Best wishes and thank you for your attendance,

Gregory Morrow, Ph.D.

Department of Psychology

Chairperson: Committee for the Advancement of Undergraduate Research and Collaborative Scholarship

Acknowledgments

The Celebration of Scholarship Committee would like to thank:

Reviewers

Ivan Chompalov	Patricia Claster	Samuel Claster	John Dexter	Qun Gu
Joyce Jagielo	Richard Lloyd	Susan Maloney	Gregory Morrow	Douglas Puharic
George Richards	Michael Skelly	Theodore Yeshion		

Judges

Celebration of Scholarship Awards

Dan Bennett	Patricia Claster	Karen Eisenhart	Matthew Foradori	Qun Gu
Joyce Jagielo	Jingze Jiang	Erinn Lake	Richard Lloyd	Anthony McMullen
Mary Jo Melvin	Jane Ellen Messier	Timothy Meyer	David Obringer	Denish Ohler
Douglas Puharic	AnneQuinn	George Richards	Michael Skelly	Eric Straffin
Amy Weschler	Richard White	Julie Wollman		

Provost's Choice Awards

Provost Michael Hannan Dean Nathan Ritchey Dean Scott Miller Dean Alan Biel Judith Kubeja

Additional Thanks To:

- Dan Bennet: L^AT_EX Typesetter
- Dr. Timothy S. Meyer: Program Editor
- Dr. Michael Hannan and the office of the Provost for the Provost's Choice Award prizes.
- Dr. Nathan Ritchey for the prizes for the College of Science and Health Professions Award prizes.
- Dr. Scott Miller for the prizes for the College of Arts, Humanities and Social Sciences Award prizes.
- Dr. Scott Miller for the prizes for the School of Business Award prizes.
- Dr. Alan Biel for the prizes for the School of Graduate Studies and Research Award prizes.
- Mr. William Berger for assistance in designing the program and the COS logo.

Committee for the Advancement of Undergraduate Research and Collaborative Scholarship (CAUGRCS)

Dan Bennett	Alan Biel	Steven Carpenter	Ivan Chompalov	Patricia Neff Claster
Samuel Claster	Kevin Courtright	Anurag Dasgupta	Qun Gu	Joyce Jagielo
Bridget Jeffery	Heather Kenny	Monty McAdoo	Amy McClune	Timothy Meyer
Greg Morrow (Chair)	Jim Roberts	Michael Skelly	Eric Straffin	Lisa Unico
James Wertz	Theodore Yeshion			

Celebration of Scholarship Committee

Gregory Morrow (Co-Chair)	Steven Carpenter (Co-Chair)	Samuel Claster	Theodore Yeshion
Amy McClune	Eric Straffin	Joyce Jagielo	Timothy Meyer
Patricia Claster	Judith Kubeja		

Schedule

12:00 to 1:00 Poster Setup

1:00 to 3:00 Closed Reviewing

3:00 to 5:00 Poster Exhibition/Judging

5:00 to 5:30 Light Refreshments

5:30 to 6:00 Program Closing and Presentation of Awards

- Welcome: Dr. Michael J. Hannan, Provost
- Awards

All activities take place in the Multipurpose room of the Pogue Student Center.

April 1

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College of Arts, Humanities and Social Sciences

GONE GIRL: AN EXPLORATION OF SOCIETY, MEDIA, AND FEMININE CRIME

Jessica Clair

History

Project Advisor(s): Jerra Jenrette

Course: History 262

Poster Number: 1603

David Fincher's 2013 film *Gone Girl* garnered massive attention for its exploration of gender stereotypes. Some argued that the movie was groundbreaking in its exploitation of societal expectations; others thought the central character's portrayal was a crass, anti-feminist archetype that perpetuated male fears about the "crazy wife." My project examines two central themes within the movie: media involvement in public perception of crime, and stereotypes about female criminal activity.

My poster explores how *Gone Girl* overturns many established theories about female crime, such as women commit "clean" crimes rather than bloody ones or that women only commit murder out of a place of great emotional distress. It also examines multiple concepts about women and crime resulting from media coverage of murder/missing persons case, such as a reverence of pregnancy, assumption of victim innocence, and spousal guilt. The film's central character is a highly intelligent woman who carries out her crime with skilled precision, and not only defies these stereotypes but addresses and uses them to her advantage. Ultimately, I am working to prove that the idea of "female crime" is both unfounded and perpetuated by media coverage, mainly by exploring how easily these stereotypes are debunked in Fincher's film.

Poster
CAHSS-1

FEMALE ARCHETYPES IN CRIME

Amanda Frye

History

Project Advisor(s): Jerra Jenrette

Course: History 262

Poster Number: 1608

An archetype is a universal symbol that appears to represent broadly recognized patterns of human behavior. Archetypes have a recurring representation in human existence and shape the function of behavior. Psychologist Carl Jung proposed that the source of recognition of an archetype was rooted in the “collective unconscious” of all humans. The collective unconscious is the notion of shared “memories” of experiences and stimuli stored in the unconscious of an entire race or culture. Some of these experiences include love, death, birth, life, struggle, and survival. These “memories” exist in the subconscious of every human and are the reason and basis for our expectations of behaviors and attitudes from particular individuals we encounter during our lives. Society’s concept of women has undergone an evolution throughout the history of human existence. This slow evolution of expectations of female behavior could, potentially, suggest merit to the belief in the existence of archetypes in our collective unconscious. If we do, indeed, possess these “memories” and expectations of female behavior, then this poses many interesting questions as to how our minds register the behavior of women who choose to commit crime. My poster will cross-reference common female archetypes with women who have committed crimes.

Poster
CAHSS-2

GENTLE PERSUASION: WOMEN IN THE MANSON FAMILY

Alexa Story

History

Project Advisor(s): Jerra Jenrette

Course: History 262

Poster Number: 1612

The Manson case is one of the most famous murderous cult cases in United States history. In the fall of 1969, seven American citizens were murdered by a group of people, consisting mostly of women, under the direct orders of a man named Charles Manson. Manson was a new breed of violent hippie that had created his own cult-like following, which he referred to as a “Family”, that he was the leader of. My paper entitled Gentle Persuasion: Women in the Manson Family, focuses mainly on the women in Manson’s cult. The questions most Americans ask when pondering the Manson case are; why did he do it and how did Manson become the vengeful cult leader he was? These queries, while important to understanding the events that took place, for the most part ignore the other members of his “Family”. What I want to know is how did Manson get to them? Why did they join? What techniques did he use to convince them to commit such horrific crimes? Why was most of the family made up of women and girls? What was their life like in the Family? These questions are what I seek to answer. I want help others, and myself, understand what really happened to these girls, who are often overlooked in favor of their leader, Manson. Through my research, I shall learn about their lives before joining the family, the types of brainwashing they endured, and how they really felt about their lives and the actions they carried out.

Poster
CAHSS-3

FEMALE CRIMINALS IN 1940'S HOLLYWOOD: DRUGS, RACE AND THE MEDIA

Andrew Confer

History

Project Advisor(s): Jerra Jenrette

Course: History 262

Poster Number: 1614

This project will investigate the arrest of three women in Hollywood in the 1940's: Billie Holiday, Lilia Leeds, and Francis Farmer. It will compare the media attention to the cases, what the crimes actually were, and how race may have played an issue.

Billie Holiday died in 1959 of complications due to alcoholism, but was arrested during the height of her career in the 1940's for her involvement with drugs. She was a Jazz vocalist, and was one of the first female artists to accumulate record sales in the millions.

Lila Leeds was an actress whose 1948 arrest came at the time when she was just beginning her acting career. After serving time in jail for her involvement with marijuana, her acting career never really recovered. The case, and her involvement and arrest with actor Robert Mitchum garnered a lot of media attention.

Francis Farmer was also an actress whose arrest gained a lot of attention from the media. After being charged with drunk driving in 1942, she was involved in an ongoing struggle with the law, and eventually hospitalized multiple times after being considered mentally unstable.

Poster
CAHSS-4

MUNCHAUSEN SYNDROME BY PROXY: MEDICAL CHILD ABUSE

Kelsie Fratus

History

Project Advisor(s): Jerra Jenrette

Course: History 262

Poster Number: 1622

Munchausen syndrome by proxy is a real and tangible form of child abuse in which a parent or caregiver knowingly makes their child ill to receive attention from medical staff, doctors, friends, and family. There is a psychological basis for Munchausen syndrome by proxy that must be examined to fully understand why parents or caregivers, specifically women, commit this type of abuse against their own children. Several case studies will be examined to explore the behaviors of these women, but also to see if they were criminally charged with child abuse or endangering the welfare of their child by making them ill. Also, there will be an examination on the psychological causes and effects that Munchausen syndrome by proxy not only has on the child but the parent or caregiver as well. Conclusively, there will be comparisons between cases both psychologically and criminally.

Poster
CAHSS-5

PROTEST MUSIC IN THE 60S, 90S, AND NOW

Stacey Shumaker, Elizabeth Stump, Antonio Mathis

History

Project Advisor(s): Jerra Jenrette

Course: Hist 262

Poster Number: 1625

Poster
CAHSS-6

Dating back into the nineteenth century, protest music has been an important part of American culture in allowing citizens to express their unrest concerning various social and civil issues. During certain time periods, protest music has been associated with various social movements such as civil rights, woman's suffrage, anti-war organizations, and more recently, gay rights and government oppression. Exercising their freedom of speech, American citizens have used protest music for decades to illustrate and bring awareness to important social problems. Our poster will include music throughout the decades of the 1960s, 1990s, and the present day, including Bob Dylan, Rage Against the Machine, John Legend, and Macklemore. Such songs that express the public's dissatisfaction with issues that still persist today, decades after the original period of unrest. Protest music has come in all genres and has had a powerful impact upon the American people.

STUDENT PERCEPTIONS OF THE UTILITY OF PERSONS WITH PHYSICAL DISABILITIES IN THE CRIMINAL JUSTICE SYSTEM

Sarah Parfitt, Kate Fisher, Anthony Mineo , Sammi Lupher

Political Science and Criminal Justice

Project Advisor(s): Deborah Vegh, Elvage Murphy

Poster Number: 1702

Poster
CAHSS-7

In 2012, 12.3% of females and 12% of males in the United States reported having a disability (Erickson, Lee, & von Schrader, 2014). Extant literature within criminal justice has researched victims of intimate partner violence with a physical disability (Hahn, et al, 2014; Rich, 2014), law enforcement's response to crime victims with physical disabilities (Hughes, et al, 2011; Oswald, et al, 2011), and the prevalence of victimization of inmates with physical disabilities (Pare & Logan, 2011; Kitei & Sales, 2008; Krienert et al., 2003). While student perceptions have been used extensively in the field for various reasons, none discern attitudes regarding the utility of persons with physical disabilities (PWPD) as professionals in the criminal justice system. The purpose of this research is to add to knowledge within this realm by students.

In Spring 2015, students from an eastern university were recruited via email to participate in an online survey. The final sample was 326 undergraduate and graduate students. Findings demonstrate relative understanding of the responsibilities for various CJ-related positions and agreement with appropriateness of such duties for PWPD that are non-confrontational and physical in nature. Policy implications are discussed.

College of Science and Health Professions

INACTIVATION OF PATHOGENS ON CONTACT SURFACES USING DECONTAMINATING SUBSTANCES PRODUCED BY RADIANT CATALYTIC IONIZATION

Joseph Mannozi, Jeffery Hulings, Kelsey Parker, Laura Mummert, Khyati Patel, Richa Patel, Kacey Celestin, Riley Hardval, Tikira Saunders

Biology and Health Services

Project Advisor(s): David Fulford, William Mackay, Craig Steele

Poster Number: 2101

Keywords: Food Safety, Microbiology, Toxicology

Foodborne illness outbreaks linked to fresh products are becoming more frequent and widespread, which affect 48 million people annually. New sanitizing technologies have emerged in recent years. Radiant Catalytic Ionization (RCI) is an organic form of treatment to disinfect food contact surfaces using reactive oxygen species (ROS). The focus of this study is to analyze the reduction of *L. innocua* and *E. coli*, when exposed to RCI. Our results indicate a 90% reduction in the recovery of bacteria with a 60 minute exposure.

Poster
CSHP-1

AB INITIO STUDY OF 1,3,5-TRIHYDROXY-1,3,5-TRIAZIN-2,4,6[1H,3H,5H]-TRIONE AND ITS DECOMPOSITION PRODUCTS

D. Sirianni, N. Kraut

Project Advisor(s): G. J. Hoffman, N. Kebede

Poster Number: 2201

1,3,5-trihydroxy-1,3,5-triazin-2,4,6[1H,3H,5H]-trione, also referred to as trihydroxyisocyanuric acid (THICA), is a stable trimer of the elusive N-hydroxyisocyanate, HONCO. The dissociation of THICA is believed to proceed by producing three HONCO intermediates, which then further dissociate to yield HNO and CO. There has been no definitive experimental observation of HONCO as a stable molecule. We present the results of ab initio calculations on THICA and HONCO, as well as the final products, CO and HNO. Calculations are performed at the level of Hartree-Fock self-consistent field theory (HF-SCF), Møller-Plesset second-order perturbation theory (MP2), coupled-cluster theory including singly and doubly excited configurations (CCSD), as well as inclusion of noniterative triple excitations (CCSD(T)); a variety of basis sets were used. Structural data, vibrational frequencies, and atomic charges are presented; it is hoped that calculated vibrational frequencies for HONCO will aid in its experimental identification. We have identified a transition state in HONCO, indicating a pathway for dissociation in the ground state. Ultimately, excited state potential surfaces for both HONCO and THICA will be explored to investigate dissociation pathways in each of these species.

Poster
CSHP-2

ANALYSIS OF ACRYLAMIDE IN STARCH-CONTAINING FOOD BY HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)

M. Montes De Oca, D. Goetz

Chemistry

Project Advisor(s): Qun Gu

Poster Number: 2202

Keywords: Acrylamide, High Performance Liquid Chromatography (HPLC), Solid Phase Extraction (SPE)

Poster
CSHP-3

Acrylamide, also known as 2-propenamide, is a chemical used as an intermediate in many industrial processes as well as a coagulant in water treatment plants. It has been demonstrated that starchy food cooked at temperatures above 150° C contain acrylamide. Potatoes naturally contain a large amount of the amino acid asparagine that transforms into acrylamide when exposed to high temperatures. This project aims to determine the levels of acrylamide present in starch-containing food such as potato chips. SPE (solid phase extraction) technique is used for sample preparation and clean-up. Then acrylamide levels are quantified with HPLC (High Performance Liquid Chromatography). Waters ®HPLC system 1525/2487 was used for this analysis.

INVESTIGATION OF CORRECTIONS FOR FLUORESCENCE INNER FILTER EFFECTS USING MICRO-CUVETTES

Michael Spicuzza, Amanda Beary, Katie Cumpston, Taylor Fenstermacher

Chemistry

Project Advisor(s): Qun Gu

Poster Number: 2203

Keywords: Inner Filter Effects; Fluorescence; Absorbance; Fluorimeter; Micro cuvettes

Poster
CSHP-4

commercial fluorimeter with right angle geometry, observed fluorescence suffers from attenuation and/or distortion due to Inner Filter Effects (IFE). The attenuation caused by absorption of excitation radiation is called primary IFE (pIFE) and the attenuation caused by absorption of emission radiation is called secondary IFE (sIFE). Previous publications on IFE corrections were based on regular cuvettes (1cm in width). The instrument and cuvette geometry show that pathlengths of excitation and emission beams (x_1 , and y_1) is related to cuvette width, w , and its length, l , both of which are equal to 1cm for a standard cuvette. A micro-cuvette, with a width of 50% or less than the size of a regular cuvette, is expecting to have much smaller pathlengths of the excitation/emission beams. Observed fluorescence signals of samples in micro-cuvettes are expected to suffer much less from IFEs. In this work, we attempt to improve IFE corrections using micro-cuvettes (5mm in width). We compare results obtained to those using regular cuvettes (1cm). A Horiba Fluormax-4 fluorimeter is used to obtain fluorescence intensity and a Shimadzu UV2600 spectrophotometer is used for absorbance measurements needed for IFE corrections.

LANDSCAPE HISTORY AT HOWARD FALLS LAND TRUST IN FRANKLIN TOWNSHIP, ERIE COUNTY, PENNSYLVANIA

Lisa Rayburg

Geosciences

Project Advisor(s): Karen Eisenhart, Richard Deal

Poster Number: 2301

The goal of this project was to create a mapped sampling area that can be used by other Geoscience research groups to carry out research at Howard Falls Land Trust in Franklin Township, Erie County, Pennsylvania. The map divides the land within the boundaries of the land trust into patches of similar land use history so that in the future, others can do field tests on soils and perform dendrochronology (tree rings studies to find the age of forest in different mapped patches). Aerial photographs, (photos of the ground taken from an aircraft wing), were used to define land use patches from 1939, 1969, 1995, and 2009 to create a final study layer using GIS (Geographic Information Systems) technology. This will allow researchers to go into the field and use a GPS to find each patch, where they can then take samples from patches that today are classified as agriculture, forested land, or patches that are transitional to forests. The map that I created in the GIS will produce a sampling frame for future studies, and serves as a database to store information that will be collected by those future studies and can be visualized on the map.

Poster
CSHP-5

MAPPING OUT FOOD DESERTS FOR ERIE MASTER GARDENERS

Jonathan Savage

Geoscience/Geography/Environmental Studies

Project Advisor(s): Karen Eisenhart, Richard Deal

Poster Number: 2302

The goal of this project was to create a map of food deserts for the Erie county Master Gardeners program so that they could build a new community garden. A food desert is an urban neighborhood or rural town without ready access to fresh, healthy, and affordable food. The USDA defines food deserts as neighborhoods > 1 mile from a supermarket and where the number of people in poverty is > 20%. I downloaded census data on areas in Erie that have low access to grocery stores (> 1 mile) and areas that have low income (poverty rate > 20%). I combined the two datasets to define locations of food deserts. Once this was done, using information given to me by Master Gardeners of Erie, I added locations for existing community gardens and addresses of vacant lots to be considered for locations of a new community garden in Erie.

Poster
CSHP-6

FAMILY PRESENCE AT RESUSCITATION IN CRITICAL CARE SETTINGS

Leeann Gohacki , Carly Gordon , Alex Granger , Teylor Pearson

Nursing

Project Advisor(s): Karen Moran

Poster Number: 2501

In today's healthcare system, "family-centered care" is becoming a mainstay practice. "Family-centered care" promotes family involvement in the design and implementation of care interventions. With this type of care model on the rise, the concept of family members witnessing resuscitation has gathered much attention. Concerns about the effect of presence during resuscitation on family members (emotional trauma) and health care workers (interference with the process and increased litigation) have impeded its successful implementation into practice. The purpose of this research was to answer the PICO question: "Do families and healthcare workers express positive responses to family presence at resuscitation in critical care settings?" This an evidenced based practice presentation supported by a literature review of 6 articles. Studies showed family presence during resuscitation efforts were viewed as positive by attending family members and health care personnel. Overall, family presence during resuscitation reassured family members that adequate care was provided to patients and facilitated the grieving process.

Family presence during resuscitation should be implemented into practice if specific guidelines are followed.

Poster
CSHP-7

DIFFERENTIAL ROTATION OF THE SUN

Domenico Andreoli

Physics

Project Advisor(s): John Hoot

Poster Number: 2601

The project obtained velocities at the East and West limbs of the Sun, this was for consistency in the results. With this data, it was shown that the velocity decreased as solar latitude increased relative to the equator. All measurements were made using the Snow Solar telescope at Mount Wilson Observatory and its spectrograph of 600 lines per millimeter, with a slit opening of 1 millimeter. The velocities were computed by using the non-relativistic Doppler Effect and choosing the Sodium D lines 1 and 2. The equatorial velocity was found to be 1.92 km/s, which was in good agreement with other data of 1.99 km/s ("Solar System Exploration: Planets: Sun: Facts & Figures" .). This comparison was made due to the fact that there were no uncertainties obtained.

Poster
CSHP-8

MEASURING STELLAR SURFACE TEMPERATURES OF STAR TYPES

Kevin Shuman

Physics

Project Advisor(s): Paula Turner

Poster Number: 2602

The objective of the project was to obtain spectra using a 16" Meade LX600 telescope and the SBIG SGS spectrograph at Mount Wilson Observatory. In addition, spectral analysis was used to obtain the surface temperature of a star from each stellar classifications O, B, A, F, G, K and M. Ten 240 second exposures and ten 240 second dark frames were taken of each star and then processed using Maxim DL. There was one exception for the F5V class star where six 240 second exposures and six 240 second dark frames were taken due to a shortage of time. To calculate the surface temperature, intensity vs. wavelength plots were made using the data processed in Maxim DL. Curve fitting and applying Wien's displacement law was used to calculate the surface temperature. An additional method was used to calculate the M class star. The method was to plot Planck curves within the temperature range to the stellar class using Planck's Law to match the shape of the intensity curve of the star. Calculations were made successfully for classes F, G, K and M. That is, the temperatures were within the temperature range of their stellar class. The results for O, B and A stellar classes were unreliable due to their nature. That is, the temperature of stellar classes O, B and A produce wavelengths of light shorter than what the spectrograph could observe. It can also be noted that toward the infrared part of the spectrum there was a flare of intensity in each of the intensity vs. wavelength plots, which could be related to the CCD's sensitivity in infrared.

Poster
CSHP-9

EXPLORING THE RELATIONSHIP BETWEEN KNOWLEDGE OF THE INSANITY DEFENSE AND POPULAR MEDIA

Gina Aki

Psychology

Project Advisor(s): Ron Craig

Poster Number: 2701

A plea of not guilty by reason of insanity (NGRI) evokes specific expectations and beliefs often based on inaccurate speculations regarding the insanity defense. Research on public perceptions regarding the NGRI defense has identified that people hold many myths and misconceptions about the defense. A survey developed to measure beliefs about the NGRI defense is the Knowledge of the Insanity Defense Scale (KIDS). While it is clear the misconceptions of the NGRI defense exist, their source is not well understood. A common source for beliefs about the legal system has been popular media, coined the "CSI effect." This study examined the relationship between exposure to popular media and perceptions of the NGRI defense. Participants' knowledge of the NGRI defense was measured using the KIDS and then were asked to indicate the type and frequency of crime media watched. No significant impact for media exposure on KIDS scores was identified; however, a significant impact of exposure to NGRI defense in an educational setting occurred on 7 of the 9 KIDS subscales, with such exposure corresponding to decreases in misconceptions. The findings are discussed in relation to systematic methods to minimize popular misperceptions of the NGRI defense.

Poster
CSHP-10

COLLEGE MINORS AND CREATIVE POTENTIAL

Chris Schneider

Psychology

Project Advisor(s): Heather Snyder

Poster Number: 2702

Poster
CSHP-11

This study will compare differences in creativity scores as measured by two Instances Tasks (Wallach & Kogan, 1965) between undergraduates with and without academic minors. It is expected that students with minors will score higher due to enhancing their primary discipline (Hao, 2010) or combining knowledge from different disciplines (Sawyer, 2012). This study will examine correlations between creativity scores and openness, creative self-perceptions, how related minors are to majors, and creative opportunities in the major and minor (Beghetto, 2009; DeYoung, Quilty, & Peterson, 2007; Jaussi, Randel, & Dionne, 2007; Silvia & Nusbaum, 2012). Significant positive correlations between these variables and creativity scores are expected (Benedek, Könen, & Neubauer, 2012). This study will provide directions for further research and may provide support for the role of college minors as indicators of creative potential (Lehnert, Till, & Ospina, 2014), which would be useful to students seeking resume-enhancers and employers seeking qualifiers. Preliminary findings will be discussed.

THE IMPACT OF ANIMATION SIMULATION PERSPECTIVE IN CLOSING ARGUMENTS ON JUROR'S PERCEPTIONS

Erin Connel, Emilee Demay

Psychology

Project Advisor(s): Ron Craig

Poster Number: 2703

Poster
CSHP-12

The presentation of visual evidence in court is commonplace; however, recent technological advances have allowed new forms of visual evidence to be produced. One example is computer animation; based on evidence and expert testimony these animations portray events consistent with either the prosecution or defense view of the case. Courts are allowing these animations to be presented to juries as demonstrative evidence. There is little research on the impact that animation evidence may have on juror's decision making. In addition, factors regarding the way the animation is presented (i.e., clarity, detail, perspective) may also impact jurors. This study examined the impact of computer animation evidence in a mock criminal trial and the role the perspective of the animation played in assessing guilt. Participants read details of a mock criminal negligence trial and then viewed animation based on the prosecution's expert or saw no visual evidence. Those who saw the animation viewed one of four versions, where perspective of the animation was varied. Participants then indicated their perception of the guilt of the defendant, certainty of decision, and the impact of the evidence presented. Data will be analyzed for impact of the animation and perspective regarding guilt and certainty of decision.

EVIDENCE FOR DIRECTED FORGETTING USING THE RPI PARADIGM

Seth Lascurain

Psychology

Project Advisor(s): Michael Skelly

Poster Number: 2704

The cognitive phenomenon of directed forgetting, which occurs when participants receive experimental instruction to forget word items, has traditionally been studied using the List Method (e.g., Foster & Sahakyan, 2011). Typical findings in the List Method show a cost in item recall when participants receive a forget cue versus a remember cue. The nature of the List Method task, however, presumably requires word items to be stored in long-term memory. The present experiment examines whether directed forgetting can be observable in working memory by implementing the release of proactive interference (RPI) paradigm, a classic method to test retention in working memory. Accordingly, we used a 2x4 mixed experimental design to investigate the between factor of cue type (forget vs. remember) and the within factor of trial (1-4) on the proportion of target words recalled in an RPI paradigm. Results indicate an equal build up of proactive interference across trials 1-3 for both cue types. However, a significant RPI occurred for trial 4 items when participants were cued to forget versus remember the previous items on trials 1-3. These findings suggest that directed forgetting can occur in working memory, thus theories about directed forgetting should not solely include long-term memory processes.

Poster
CSHP-13

A NOVEL CANNABINOID CB1 ANTAGONIST WITH THERAPEUTIC POTENTIAL SHOWS NO SIGN OF IMPULSIVE RESPONDING IN RATS

Julia E. Jagielo-Miller, Taylor M. Proper, Marigny C. Normann

Psychology

Project Advisor(s): Peter McLaughlin

Poster Number: 2705

Cannabinoid CB1 receptor inverse agonists have been examined as appetite suppressants, but clinical trials raised concerns they may cause psychiatric side effects such as suicidal depression. In the present study we examined a related category of appetite suppressants. AM 6527 is a CB1 receptor antagonist. To model depression, WAY 100,635 (WAY), a serotonin 5HT1A receptor antagonist, was administered to rats. In a previous study in our lab, rats received AM 6527 with and without WAY, and then were assessed using a classic test of impulsivity, the fixed consecutive number task (FCN). Rats given AM 6527 showed impaired performance consistent with increased impulsivity when it was co-administered with WAY. The FCN task, however, may be sensitive to changes in time perception and other processes. Subsequently we employed a novel impulsivity task, variable consecutive number (VCN), which does not show this sensitivity. Rats given AM 6527 did not show an increase in impulsivity, with or without WAY. This suggests that CB1 receptor antagonist drugs may be a viable alternative to CB1 receptor inverse agonist drugs.

Poster
CSHP-14

CB1 INVERSE AGONISM CAUSES IMPULSIVE BEHAVIOR IN STATES OF DISRUPTED SEROTONIN SIGNALING

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Poster Number: 2706

Poster
CSHP-15

Rimonabant is a cannabinoid CB1 receptor inverse agonist that had therapeutic potential as an appetite suppressant, but failed to receive FDA approval due to psychiatric side effects, including suicidal behavior. One component of these adverse reactions that can be studied outside of human clinical trials is impulsive behavior. Rats were trained in a novel impulsive choice task and given AM 251, a CB1 inverse agonist similar to rimonabant. It was found that up to 8 mg/kg AM 251 produced no effects on its own. To induce a serotonin dysregulation proposed to be similar to that of suicidal depression in humans, animals were pretreated with the serotonin 5HT1A receptor antagonist WAY 100,635. With the pretreatment, a lower dose of AM 251 (4 mg/kg) significantly enhanced impulsivity. Translating these results to the human population, CB1 inverse agonist treatment does not typically produce impulsive behavior, but may do so in individuals with serotonin dysregulation.

TRAINED ACTION VIDEO GAMERS ARE LESS SUSCEPTIBLE TO CHANGE BLINDNESS

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Poster Number: 2707

Poster
CSHP-16

Modern military wartime operations require soldiers to monitor digital displays. Unfortunately, humans are well reported to have difficulty detecting display changes, a phenomenon called change blindness. Although the military reports no accuracy advantage in detecting scene changes between video gamers and non-gamers, no study has examined reaction time differences for detecting scene changes between these participants. The present experiment investigated the effect of video game training on the reaction time necessary to detect a scene change in photos presented in the flicker paradigm, a paradigm commonly used to test change blindness. All participants reported being novice gamers and no prior experience playing first-person shooter (FPS) games. Unlike the control group, trained participants completed a minimum of five, one-hour sessions playing a FPS game. All participants performed a pre- and post-training change blindness task. Results indicate identical reaction times for trained gamers and control participants in the pre-training task. However, trained gamers require significantly less time to detect a scene change than control participants in the post-training task. As expected, detection accuracy did not differ across groups or task. In sum, the military should train soldiers on FPS video games for the present findings suggest such training reduces change blindness.

BODY SATISFACTION DIFFERENCES AMONG LOW, MODERATE, AND HIGH LEVELS OF EXERCISE IN A SAMPLE OF RECREATIONAL RUNNERS

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Poster Number: 2708

Although the psychological benefits of exercise have been well documented, the relationship between exercise and psychological health may be complex. Recently, Kim et al. (2012) found that participants who reported exercising less than 2.5 or more than 7.5 hours per week reported more mental health problems than those who reported weekly exercise durations in the middle of this range. The purpose of the present study was to investigate the relationship between these three levels of exercise and the body image satisfaction of recreational runners. Exercise is often positively associated with body satisfaction; however, there are exceptions, such as in exercise dependence and sometimes with obligatory exercise. Participants completed an on-line survey that assessed exercise habits using the same measure as Kim et al. (2012), two questions from the Health Information National Trends Survey, and body satisfaction using two subscales of the Multidimensional Body-Self Relations Questionnaire- Appearance Evaluation and Body Area Satisfaction. A MANOVA revealed an overall significant difference between the three groups, with the high duration group having a higher mean body satisfaction than the middle and low duration groups. Results are discussed in terms of the Kim et al. (2012) study, and previous research on exercise and body satisfaction.

Poster
CSHP-17

School of Business

TRAINING PROGRAMS OF HEALTH SERVICES FIRMS: OVERVIEW OF PHARMACEUTICAL REPRESENTATIVES' TRAINING PROGRAMS IN ERIE COUNTY

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Business

Project Advisor(s): Asri Jantan

Poster Number: 3001

Keywords: Health Services, Health Care, Pharmaceutical Representatives, Pharmaceutical Reps' Training Programs, Training and Development, Erie County

Poster
SB-1

Significant effort has been given to investigate the effectiveness of the training programs of health services firms within the past decade. The sample of this study was derived from a snowball sampling technique of pharmaceutical representatives in the Erie County area. Out of 100 pharmaceutical reps contacted, 28 (28% response rate) agreed to participate in this study. Findings revealed that 92% of the sample agreed that pharmaceutical reps' training programs indeed exist and that they are very well managed. 67% of the respondents revealed that their training needs were assessed objectively. Among the most important training goals pharmaceutical reps' identified were improving presentation skills (82%) and improving listening skills (85.7%). The top two training methods utilized were participative (60%) and demonstration (64.3%) methods. The top two critical pharmaceutical training topics that received training attention were product information (92.9%) and understanding good ethical standards (85.7%). Findings also reported that pharmaceutical reps' training programs were evaluated using behavior-based observation method (92.9%) and knowledge-based evaluation method following a systematic online protocol (92.9%). Lastly, 92.9% of the pharmaceutical reps agreed that their training programs have directly impacted their non-verbal communication skills which are vital to attain when selling competitively to hospitals and medical professionals.

School of Graduate Studies and Research

THE PERCEPTIONS OF PRIMARY CARE PROVIDERS ON PATIENT BARRIERS TO SECONDARY STROKE PREVENTION

Jenefer Barry, Valerie Wowk

Nursing

Project Advisor(s): Amy McClune

Poster Number: 5001

Strokes are potentially debilitating events that can cause residual physical, cognitive, and emotional deficits. The American Heart Association and American Stroke Association have established guidelines to prevent secondary stroke. Despite the proven effectiveness of these guidelines, secondary strokes remain prevalent. Adherence to secondary stroke prevention is a critical issue and may contribute to the large number of recurrent strokes that occur annually. The purpose of this study is to investigate primary care providers' perceptions of patient barriers to secondary stroke prevention. There has been little research conducted to explore the reasons why individuals who have suffered a stroke experience difficulty adhering to treatment plans focused on preventing another stroke. This study is supported by the integrated theory of health behavior change (ITHBC) that was developed to improve patient outcomes long-term by encouraging patients to adopt healthier behaviors. In this non-experimental, cross-sectional, exploratory study a convenience sample of PCPs were surveyed in western Pennsylvania. A survey was designed for this study based on literature review related to patient barriers to stroke prevention. Surveys were sent to physicians, nurse practitioners, and physician assistants who practice primary care.

Poster
GC-1

ADVANCED DIRECTIVE COMMUNICATION BARRIERS

Angela Damore, Melissa Eckman, Brian Yoms

Project Advisor(s): Amy McClune

Poster Number: 5002

Advanced directives help to ensure individuals have autonomy in their end of life care. Decisions and treatment options available during end of life care are not always an easy subject to approach. Primary care providers and patients find this a sensitive topic and attitudes vary surrounding the subject. Through communication, advanced care planning discussions allow primary care providers and patients the knowledge and autonomy to develop an advanced directive. Unfortunately, the number of individuals with advanced directives remains low (U.S. Department of Health and Human Services, 2008). A cross-sectional study that surveys individual's attitudes surrounding advanced directives and identifies perceived communication barriers with their primary care providers in Western Pennsylvania is being conducted. The study applied The Health Promotion Model (HPM) developed by Dr. Nola Pender (1996) to bring focus on the patient's perspective and experiences. The study was reviewed by the Edinboro University IRB and was determined to be exempt.

Poster
GC-2

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