

2012

Celebration 2012 Abstract Booklet and Student Presentation Schedule

Xavier University - Cincinnati

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**XAVIER UNIVERSITY
APRIL 16, 2012**

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POSTER PRESENTATIONS

1. FORMALITIES OF MAN AND NATURE: A SERIES OF PHOTOGRAPHS JUXTAPOSED

Natalie Clark (Jonathan Gibson)

Department of Art



The exponential progress of technology in recent decades has placed the modern human being's relationship to nature in crisis. Technology has transformed human existence from daily interaction and dependence upon the natural world, into isolation and alienation from it. Has this transformation created 'separation anxiety?' How can human beings reinvigorate their pure connection to nature in a world that alienates them from it? Despite the progression of technology, as far as it may advance, we will always need to *breathe*. This series of photographs will compare man and nature as interrelated and interconnected subjects. Presentation will aim to juxtapose the two forms and investigate the complex relationship of nature and modern human beings, who are often isolated and alienated from nature by technology, but who are also undeniably part of the natural world. Through a progressive series of photographs, viewers will be asked to confront these complexities and decipher between the two subjects while also recognizing the similarities. Both images of the figure, and the elements of nature will be represented in clear detail and through qualities intrinsic to the subject. Although each will be recognizable, they will also be somewhat distorted to create a dream-like quality and to reference how technology is altering our relationship. To achieve this distortion, I will be shooting my subjects through a concave/convex mirror. All of my photographs will be in black and white in order to reaffirm the similarities of formality, and to make them appear as a study without the distraction of color differentiation, or informative backgrounds. I will not be focusing on any one natural or human issue or subject, but rather commenting on the overall connection and dependence we as people have on nature, as well as nature's relationship to man.

2.

THE GRIEVING HEART STILL BEATS: A SERIES OF RESIN FIGURES

Catherine A. Della Lucia (Kelly Phelps)

Department of Art



A series of sculpted, hollow resin figures is used to explore and document the isolating power of grief's existence beneath the serene surface of society. The nude female forms incorporate excess mass and the effects of gravity as a metaphor to describe emotional baggage. Their hollow structure signifies the feeling of irreplaceable emptiness on behalf of the bereaved. The use of obesity is intended to exploit the viewer's visceral distaste for overweight forms in order to expose society's rejection of grief in the social realm and its reluctance to deal with it. The series focuses on the complex process of Mediaramics, an innovative multimedia technique that uses petroleum based resins. The technical process begins with the construction of a clay figure that is then destroyed during the plaster mold making process in order to create a much more resilient final product consisting of layered resin and fiberglass. This intensive process echoes Elizabeth Kubler-Ross' multi-stage grieving process alluding to the fact that through grief emerge change and healing. Just as the substitutive process of Mediaramics produces a work of art much more durable than the initial medium, it is through the grieving process alone that a person becomes stronger and more resilient. This analogy illustrates the following: destruction and struggle transpire beauty, and through process and time, one finds healing. Furthermore, in alignment with Heidegger's philosophy of art, emotion and truth, the sculptures serve as tangible snapshots documenting the raw moments of grief where words and actions have failed. Finally, the creation of these figures will provide evidence of the therapeutic power of art therapy, as this project is rooted in the artist's ongoing struggle with grief.

3. **HUMAN MUSCULOSKELETAL DIFFERENCES AND THEIR EFFECT ON LONG DISTANCE RUNNING ABILITY AND SPEED**

Keith Albrektsen (Dr. William Anyonge)
Department of Biology



This study investigates whether muscular and skeletal variations have an effect on long distance running ability and/or speed. The subjects included all long distance runners and sprinters on the Xavier University track and field team. Digital images were taken of each runner in an upright posture. The length of the calcaneum (heel bone), foot, femur, tibia, and arm was measured from digital images using imaging software. Additionally, a tape measure was used to obtain the circumference of each runner's calf and quadriceps muscle. These skeletal and muscular measurements were then combined with sex, age, and personal best times for 100 meter, 1500 meter, and/or 5000 meter races. The data was analyzed to determine whether there is a correlation between these variables and speed or long distance running ability. Calcaneum length is expected to be the most informative metric, as it correlates to the length of the Achilles tendon and, consequently, the amount of elastic energy able to be converted to kinetic energy for running. A shorter calcaneum allows the Achilles tendon to be stretched to a higher degree, thus releasing more kinetic energy. It was hypothesized that runners with a short calcaneal length should be able to run long distances more efficiently at higher speed. Sprinters should also exhibit relatively larger calf and quadriceps muscles compared to long distance runners.

4. **THE RELATIONSHIP BETWEEN FEEDING TYPE AND SKULL STRUCTURE IN UNGULATES**

Rachael L. Barge (Dr. William Anyonge)
Department of Biology



The term *Ungulata* refers to a group of hoofed mammals, which fall into three feeding categories: grazers, browsers, and mixed feeders. Grazers feed mainly on grasses and lower vegetation, while browsers feed on woody and non-woody dicotyledonous plants. The mixed feeding ungulates exhibit both types of feeding habits. In order to investigate the relationship between feeding type and skull structure in ungulates, the cranial and jaw morphology of ten species of modern ungulates was evaluated. A total of 15 traits were measured from digital images of jaws and skulls of each species using ImageJ, a morphometrics software program. Several indices that have been shown to reflect functional significance were computed from these measurements, standardized, and subjected to an analysis of variance. We hypothesized that grazers should exhibit larger jaw muscles (especially the masseter) with enhanced moment arms that correlate to tougher diets (abrasive grasses with high silicon content) compared to browsers (consume <25% grass) or mixed feeders (consume 25-75% grass). Results indicated that grazers and mixed feeders have a relatively larger masseter muscle than that found in browsers. This has a functional significance in species such as *Equus caballus* (horse) and *Equus asinus* (donkey), which utilize enhanced grinding jaw action. Mixed feeding ungulates were also found to have large zygomatic arch widths, which correlates with the relatively larger jaw musculature (masseter and temporalis). This is consistent with the diets of the mixed feeding ungulates, as it is necessary for these ungulates to have both crushing and grinding abilities. Browsers were found to have a relatively large temporalis muscle, which provides elevation and retraction of the mandible. A larger temporalis muscle could potentially allow the browsing ungulates to have more biting and crushing force as opposed to grazing ungulates. However, the true functional significance of this difference is unclear.

5. **LIMB PROPORTIONS IN OPEN AND CLOSED HABITAT UNGULATES**

Sarah E. Finucane (Dr. William Anyonge)
Department of Biology



Despite the taxonomic affinity of the ungulates (hoofed mammals) these animals inhabit a wide variety of habitats. This study investigates whether limb morphology differs in ungulates adapted to open (i.e. grassland) versus closed (i.e. forest) habitats. Measurements were made from digital images of the proximal limb bones, the humerus and femur, and distal elements, the radius and tibia, of 7 species within the order Artiodactyla (even-toed ungulates) and 3 species within the Perissodactyla (odd-toed ungulates). Brachial, intermembral, and crural indices were computed and subjected to an analysis of variance to determine whether there were any significant differences in limb proportions between the open and closed habitat species. Results do not indicate a

strong correlation between habitat and limb length. However all Perrisodactyls included in the study showed relatively longer limbs than the Artiodactyls.

6. ESTIMATION OF BODY MASS IN AN EXTINCT HYENA

Melissa C. Nelson (Dr. William Anyonge)

Department of Biology



Ictitherium ebu is an extinct fossil hyena that lived in Sub-Saharan Africa. A complete skeleton was recovered in 1993 at Lothagam in north-western Kenya. The deposits from which the fossils derive are Late Miocene (7 million years old). The main objective of this research was to estimate the body mass of *I. ebu* from limb bone measurements and make inferences regarding its paleobiology. Limb bone measurements were made on digital images of *I. ebu* and modern hyenas using ImageJ, a morphometrics software program. The measurements included the length of the femur, tibia, radius, humerus, and mid-shaft circumference of the femur. Two femoral measurements were used in regression equations found in the literature to calculate body mass. The equations were derived from regressions of body mass on linear measures for modern carnivores. Two equations based on femoral measures (length and circumference) were used to determine the body mass of the extinct hyena. The body mass of *I. ebu* was estimated to be between 26 – 39 kg; similar to the average body mass of the modern striped hyena (*Hyaena hyaena*). *Ictitherium ebu* had relatively larger limb proportions than any of the modern hyenas. It had elongated distal limb elements, which suggest enhanced cursorial ability. This means they had increased speed, an advantage when pursuing fast prey.

7. LOCOMOTOR ADAPTATIONS IN PROSIMIANS

Kristen C. Poedtke (Dr. William Anyonge)

Department of Biology



Many studies have been conducted on limb morphology and locomotor patterns in primates. However, few include the smallest members of the primate order, Prosimii. Prosimians have the most internally diverse methods of locomotion. The locomotor patterns commonly observed include quadrupedal, bipedal, leaping, and clingers. This study investigated the correlation between limb proportions and the most commonly utilized method of locomotion among twelve prosimian species. A morphometric software program, MacMorph, was used to take measurements from digital images of the principal limb bones (femur, tibia, humerus and radius) of the species under study. Crural, brachial, and intermembral indices were computed and subjected to an analysis of variance to test for significant differences in limb proportions. The results indicated that limb proportions were strongly correlated with locomotor patterns. All lemur species fell into the same category, with most utilizing primarily quadrupedal and leaping locomotor patterns. They all possessed slightly longer hind limbs in comparison to forelimbs. Those species placed into the clinger group had the most equal proportion of brachial and crural indices. There was only one outlier, the tarsier, which was intermediate between the clinger and leaper groups.

8. CRANIOFACIAL MORPHOLOGY AND FEEDING BEHAVIOR IN *ARCTODUS SIMUS*, THE EXTINCT PLEISTOCENE SHORT-FACED BEAR

Josh Root (Dr. William Anyonge)

Department of Biology



The short-faced bear, *Arctodus simus*, dates back to the Pleistocene epoch and is believed to have become extinct near the end of the Pleistocene, approximately 10,000 years ago. In North America, more than one hundred sites have produced remains of the giant short-faced bear. The size of *A. simus* is estimated to have been over 1500 pounds for an adult male that stood about five feet tall at the shoulder and nearly eleven with some studies suggesting that the giant short-faced bear was a ferocious predator whereas others have concluded that it was either herbivorous or an opportunistic scavenger. This study further investigates the probable diet and feeding behavior of *A. simus* by comparing its craniofacial morphology and biomechanics to that in living bears. Several cranial indices that reflect the size of jaw musculature and relative moment-arms of the muscles were computed from measurements made on skulls of the extant and extinct species and evaluated to discern correlations between skull morphology and preferred diet.

9. EFFECTS OF *LONICERA MAACKII* (AMUR HONEYSUCKLE) ON OHIO SOUTHWESTERN DECIDUOUS FORESTS

Liz Morrison, Ben Taylor, Matt Freese (Dr. Brent Blair)
Department of Biology



The objective of this study was to determine the effect of *Lonicera Maackii* (Amur Honeysuckle) on forest soil respiration. Honeysuckle is an invasive woody plant that grows prolifically in southwestern Ohio. Previous research indicates that honeysuckle has detrimental effects on forest ecosystems. Our study explores whether honeysuckle may alter soil respiration due to changes in the root and microbial community. The study was conducted in two areas of Mt. Airy Forest in Cincinnati, OH. There were two experimental treatments (Honeysuckle and Honeysuckle cleared) and one control treatment (forest). Using an EGM-4 Soil Analysis Chamber, the soil respiration rate for both plots was measured in both Fall 2011 and Spring 2012 to control for seasonal climate variation. Analysis of results is still pending however data collected in the fall of 2011 indicates significant variation between the honeysuckle treatments and forest treatments. Honeysuckle cleared plots seem to have reverted to levels similar to those of the forest plots. Our results suggest that Amur Honeysuckle has impacts on soil respiration in deciduous forests and removal of honeysuckle allows for remediation of soil.

10. EFFECTS IN THE PRESENCE OF HONEYSUCKLE (*LONICERA MACKII*) ON LEAF LITTER DECOMPOSITION RATES IN A SOUTHWESTERN OHIO WOODLAND

Lauren Amongero, Amy Stewart, Henry Weiss, (Dr. Brent Blair)
Department of Biology



Exotic plant invasion is of concern to both resource managers and ecologists as these species present a threat to the long-term maintenance of economic and environmental well being. Exotic invasive species are characterized for their ability to thrive outside their natural domains and thereby disrupt natural habitats. In order to study the effects of invasive species, we must consider both the nature of the invasive species as well as the non-native community that they have entered. In our study we examined the effects of invasive amur honeysuckle (*Lonicera mackii*) on leaf litter decomposition in Mt. Airy forest, a southwestern Ohio woodland. Honeysuckle is thought to alter the soil composition in areas where it invades by adding extra nutrients, including Nitrogen and Phosphorus. A mesh bag technique was used to assess the decomposition of white ash leaves and filter paper over a period of approximately three months. Mesh bags were placed in forests under three different conditions: (1) where honeysuckle was present, (2) where honeysuckle had been cut down, and (3) in natural forest areas containing no honeysuckle. We hypothesized that decomposition rates would be faster in areas where honeysuckle is present. Experimental results are pending at this time.

11. THE ROLE OF L AND T-TYPE Ca^{2+} CHANNELS IN VASOCONSTRICTION OF BOVINE CORONARY ARTERIES

Kalyn Campbell, Trent Eckle, Caylin Howell, Palak Shah, Bushra Siddiqui, Julie Tritschler
(Dr. Lisa Close-Jacob)
Department of Biology



The focus of this study was to determine the mechanism underlying vasoconstriction in left anterior descending (LAD) coronary arteries. Two calcium channels, L-type and/or T-type, may be involved in this behaviour. The drugs nifedipine and mibefradil inhibit contraction associated with L-type and T-type channels, respectively. The purpose of this study was to determine whether L-type or T-type calcium channels play a role in the contraction leading to vasoconstriction. Arterial rings were hung on force transducers and submerged in 37°C Krebs's solution bubbled with 95% O₂-5% CO₂ gas. Following a one hour equilibration period, nifedipine and mibefradil were added to separate experimental chambers, while the corresponding control rings received no drug. The arteries were then treated with U46619 to induce contraction. The data illustrated that treatment with nifedipine alone reduced the magnitude of the U46619-induced contraction by 39.80% compared to the control value. When compared with the control, treatment

with mibefradil alone was found to reduce the magnitude of the U46619-induced contraction by 1.53%. Treatment with both nifedipine and mibefradil indicated a reduction in magnitude of contraction of 60.95% compared to the control. In conclusion, the nifedipine was found to have a much greater effect on the developed tension when compared to the mibefradil indicating that L-type Ca^{2+} channels play a more important role in the vasoconstriction of the LAD coronary arteries than the T-type Ca^{2+} channels.

12. TIMING OF COMMUNAL ROOSTING BEHAVIOR IN CHIMNEY SWIFTS DURING FALL MIGRATION

Jena A. Barnawi, Michelle L. Bellman, Olivia N. Catanzaro, Anthony D. D'Amico, Joseph D. Lyons, and Marla A. Masters (Dr. George L. Farnsworth)

Department of Biology



Chimney Swifts, *Chaetura pelagica*, are migratory insectivorous birds that nest in Eastern North America and spend the winter in South America. They fly during daylight hours, feeding on aerial insects. During fall migration they congregate in large numbers at communal roosts in the evening. One such roost is located in the large chimney of the Field House on the campus of Xavier University. In recent years, Chimney Swifts have been experiencing population declines throughout the species range and in Ohio in particular. This is most likely due to the loss of nesting and roosting structures (chimneys of old buildings). We studied the roosting behavior of Chimney Swifts in response to local weather phenomena during fall migration in 2011. We recorded the timing of birds entering the chimney by observation and use of video recordings nightly between 31 August and 5 October 2011. We performed multiple least squares regression on the time of the fifteenth bird entering the chimney against several weather parameters (temperature, humidity, rainfall, etc.) and seasonal information (calendar date and time of sunset). Chimney Swifts entered the chimney earlier as the season progressed (earlier sunset) and earlier when it was cold, particularly with high humidity and precipitation.

13. STUDIES ON MANATEE VOCAL SIGNATURE

Julia Coughlin, Emily Nishimori, Nathan Sivitz, Jamie Russell, Nick Fulks, Angela Muirheid (Dr. Charles Grossman)

Department of Biology



The Florida Manatee (*Trichechus manatus latirostris*) is an endangered species whose survival has been threatened by human and environmental factors, such as boating accidents, toxic algae, and cold winter temperatures. Their vocalizations appear to humans as high frequency squeaks which fall into the audible hearing range (20 Hz - 20,000 Hz), but harmonics produced by these vocalizations can be in the ultrasonic range (21,000 Hz - 40,000 Hz). It has been suggested that these vocalizations are a form of communication and may be used by manatees during various social activities, but there has been little research on using these vocalizations to identify individual animals. The purpose of this study was therefore to analyze manatee vocalizations by determining vocal signatures for several individuals in hopes of developing an accurate and reproducible method of vocal recognition. To accomplish this, we recorded the vocalizations from three manatees housed in captivity at the Cincinnati Zoo and Botanical Garden. We placed an Aquarian hydrophone in the manatee tank and recorded the sounds received on mini discs using a MiniDisc recorder. Using head-sets fitted with microphones we were then able to observe the manatees that were vocalizing and at the same time report on the sound track of the mini disc exactly which animal was responsible for a particular vocation. These vocalization recordings were then transferred in our lab at Xavier to permanent audio files and the individual manatee vocalizations were then visualized using a computer program called Cool Edit Pro. Thus we could determine for each individual manatee vocalization specific characteristics including duration, fundamental frequency, the number of harmonics, step size and modulation. These data were then analyzed using statistical programs to determine if known animals could generate individualized vocalizations.

14. THE EFFECT OF DECOMPOSITION FLUID ON INSECT COLONIZATION IN HOUSEHOLD TRASH

Brenna C. Gosky and Jacquelyn E. Rapkin (Dr. Mollie McIntosh)
Department of Biology



In the field of forensic entomology, insects that inhabit decomposing remains are used to aid in legal investigations. In the recent Casey Anthony trial, insect evidence was collected from trash held within the trunk of the prime suspect's vehicle, a location in which human remains were suspected to reside at one time. This complex environment brought into question, whether the observed insect activity was due to the presence of decomposing remains or due to the presence of trash. To better understand this type of situation, our main objective was to assess the effect of decomposing fluid on insect colonization in household trash. We predicted that trash containing decomposition fluid will be colonized with greater insect abundance and diversity compared to control groups. Six trash models, three containing decomposition fluid and three without, were left outside for a four week period during fall 2012. In addition, a control pig model was also used to assess normal insect colonization patterns for carrion throughout the study period. Collected insect samples were identified to the lowest possible taxonomic level. None of the control models were colonized by carrion-associated insects; whereas, two decomposition fluid models were colonized, mainly by Diptera (fly) larvae. Taxa associated with the pig model had more similarity to the decomposition fluid treatment compared to controls. These results suggest the presence of decomposition fluid may alter insect community structure in household trash; however, more in depth research is needed to fully understand colonization dynamics.

15. MACROINVERTE COMMUNITY STRUCTURE AND FUNCTION FROM MULTIPLE HABITATS OF PALAUAN STREAMS

Stephanie F. Howes and William H. Eichenberger (Dr. Mollie McIntosh)
Department of Biology



Compared to temperate regions, relatively little information is known about tropical streams, especially on tropical islands. Increased human activity in these regions has begun to threaten many tropical stream ecosystems and the biological communities within. In the Republic of Palau, located in the southwest portion of Micronesia, the effect of increased development and tourism on stream ecosystems is of current concern and has led to the initiation of a biomonitoring program. However, in order to develop an effective program, more baseline information on Palauan stream ecosystems is needed. As a result, the main objective of this study was to determine macroinvertebrate community structure and function within multiple habitats of Palauan streams. Macroinvertebrate samples, and associated physical variables, were collected twice from fast and slow habitats from four streams (Ngatpang, Ngermaskang, Ngerkill, and Ngarmau) in August 2011. Preliminary data indicate high percentages of filter-collector functional feeding types with high variation among streams and between habitats. This research will provide valuable baseline information for the stream biomonitoring program in Palau.

16. A TEMPORAL ASSESSMENT OF MACROINVERTEBRATE STRUCTURE AND FUNCTION IN TEMPORARY WETLANDS OF SOUTHWESTERN OHIO

Timothy A. Sundrup (Dr. Mollie McIntosh)
Department of Biology



Biological assessment protocols have been created for many aquatic environments, but few exist for temporary wetlands. The main objectives of this study were to (1) identify macroinvertebrate communities within temporary, constructed wetlands of variable age and (2) assess variation in macroinvertebrate structure and function overtime. Macroinvertebrate samples, and corresponding abiotic variables, were collected once a month from 12 wetlands located within the Hamilton County Park District of Southwest Ohio from May to November 2011. Invertebrate community structure and function, through taxonomic and functional feeding group designations respectively, were determined and differences overtime assessed. Preliminary results suggest that larger, more permanent wetlands have higher macroinvertebrate diversity and density; whereas, wetlands most recently created contained the lowest diversity. Variation in macroinvertebrate structure and function was observed throughout the year in all wetlands regardless of age. This research will provide important ecological information on invertebrate community dynamics within temporary wetlands, and will

support on-going endeavors in the development of bioassessment protocols in wetlands and ephemeral aquatic habitats.

17. Evaluating Potential Cardioprotective Mechanisms of Hsp70
Courtney Heys, Allison Lubert, Ariadne Ramirez, and Shaunte Wade (Dr. Waltke Paulding)
Department of Biology



Recent American Heart Association data estimates that roughly 8 million people will suffer a myocardial infarction as a result of coronary heart disease (CHD), leading to a loss of blood flow (ischemia) to a region of the myocardium and subsequent cell death. Interestingly, the heart possesses an innate mechanism by

which it is able to protect itself against the ischemic injury associated with myocardial infarction termed Ischemic Preconditioning (IPC). It is known that late phase IPC cardioprotection requires NF-kB-dependent gene expression. A paradox exists regarding NF-kB signalling, namely that it is protective in late IPC, but is injurious in ischemia reperfusion (I/R) injury, where after a short period of ischemia, reperfusion occurs, causing an increase in tissue death that is associated with production of free radicals. Thus, understanding the mechanisms of how NF-kB regulates the Hsp70 gene is potentially important in the development of therapeutics seeking to modulate cell death. The overall objective of this project is to develop a cell-based model to determine the mechanisms that underlie differential effects of NF-kB following ischemic insults.

18. IDENTIFYING PCR PRIMERS TO DELINEATE SPECIES BOUNDARIES IN THE CERAMBYCID GENUS *CROSSIDIUS*

Angela Cheung (Dr. Ann Ray)
Department of Biology



Currently, there are 35,000 cerambycid species. Within the species of cerambycids, there are 12 species of *Crossidius*, which are further divided into 50 subspecies. The genus *Crossidius* is found in North America and most of them are populated in the Great Basin region (Linsley). The larvae are rootborers in perennial flowers and the adult are found on the flowers of the host plants, where they mate and feed on pollen (Linsley). We know how cerambycids are related to other beetles, but we do not know how cerambycids are related to each other (Ray 2009). We want to know if it is legitimate to further divide the 12 species of *Crossidius* into 50 subspecies. The purpose of this experiment was to screen PCR primers to amplify cerambycid DNA to delineate species boundaries in *Crossidius*. Individuals of seven *Crossidius* species were used in the experiment. The DNA was extracted from the legs of the beetles and standard PCR procedures were performed. We attempted to amplify and sequence regions of 28S, topoisomerase, and cytooxidase (COI). Using standard procedures, we were able to amplify regions of COI and topoisomerase. We failed to amplify the regions of 28S. Here we discuss the advantages and disadvantages of using COI and topoisomerase for delineating species boundaries in cerambycids.

19. A BASELINE SURVEY FOR LONGHORNED BEETLES USING “GENERIC” PHEROMONES

Mitchell Jamison (Dr. Ann M. Ray)
Department of Biology



Beetles of the family Cerambycidae are considered to be among the world’s most economically important pests. Additionally, these beetles exhibit important biological phenomena including the utilization of generic pheromones. These pheromones have proven useful in the past in surveying for long horned beetles. A survey of Cerambycidae has not been performed in Ohio since 1946. We used generic pheromone traps to capture and identify 34 cerambycid species from rural Southwestern Ohio. This work will aid future research by providing a baseline survey through which further experimentation can be undertaken.

20. EVIDENCE FOR VOLATILE PHEROMONES IN COSTA RICAN CERAMBYCDAE

Megan M. Montalvo (Dr. Ann M. Ray)

Department of Biology

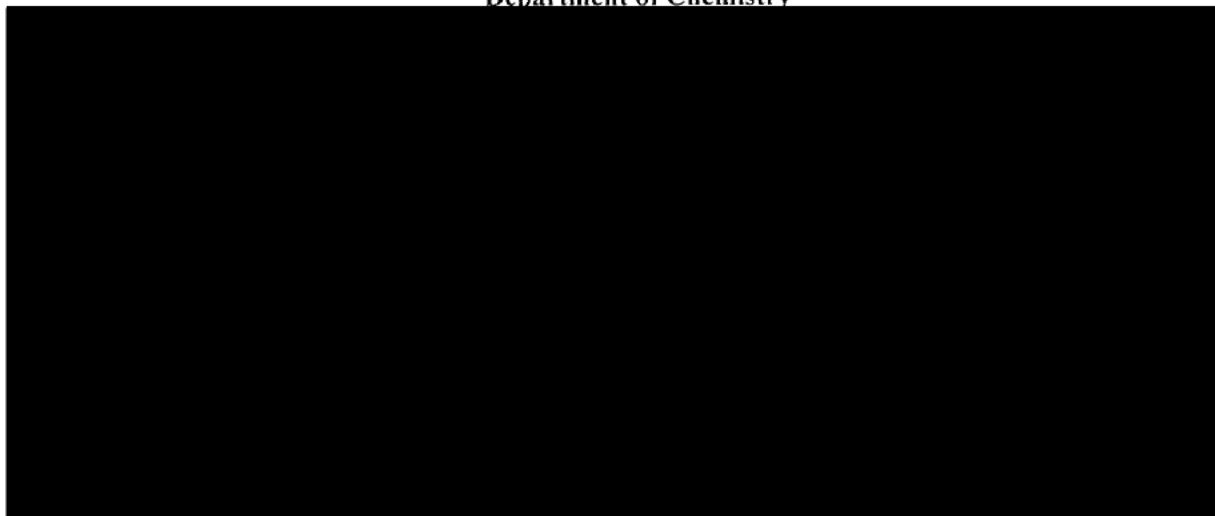


The Cerambycidae comprise a diverse family of beetles with over 35,000 species. Recent research has suggests that pheromone structures are highly conserved within and among some cerambycid subfamilies. These so-called “generic” pheromones can be used to survey for cerambycid beetles in a variety of geographic locations. We report the use of generic pheromones to survey for long horned beetles at two field sites in Costa Rica. Traps were baited with synthetic pheromones, floral volatiles, or a solvent control. We collected twelve adult *Neoclytus cacticus* (Chervolat) in traps baited with a blend of 3*R**-hydroxy-2-octanone and 2*R** 3*R** hexanediol. *Neoclytus cacticus* was capture in traps baited with the pheromones of its congeners, *N. a. acumminatus* (F.) and *N. tenuiscriptus* Fall. This experiment is the first evidence of a pheromone in a species of cerambycid from Costa Rica.

21. THE DETECTION OF MANGANESE USING CATHODIC STRIPPING VOLTAMMETRY ON A GLASSY CARBON ELECTRODE

Daniel R. Hagee (Dr. Adam Bange)

Department of Chemistry



22. DETERMINATION OF TRACE METAL CONTAMINANTS USING VOLTAMMETRY

Michael Steinmetz (Dr. Adam Bange)

Department of Chemistry

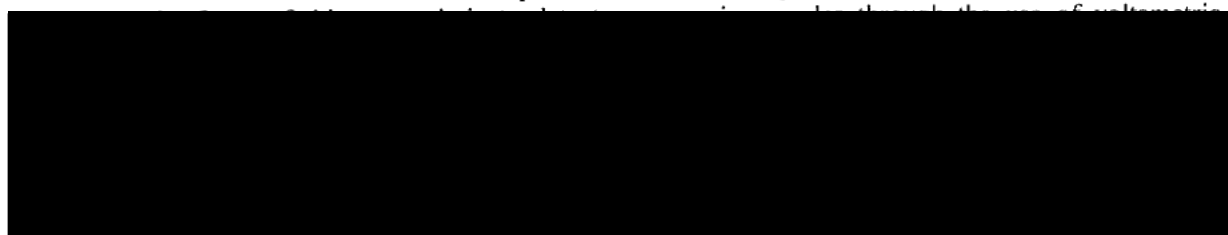


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23. DETECTION OF MERCURY IN SAMPLE THROUGH THE USE OF VOLTAMETRIC TECHNIQUES

Arzell West-Estell (Dr. Adam Bange)

Department of Chemistry



**24. SYNTHESIS OF NICKEL(II) COMPLEXES WITH TRI-OXIME LIGANDS
TO BE OXYGEN-ACTIVATING CATALYSTS**

**Andre I. Doub, Ariel R. Hall (Dr. Craig Davis)
Department of Chemistry**



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**25. CRUDE EXTRACT OF TERMINALIA CATAPPA L. LEAVES AS A NATURAL
CHROMOGENIC REAGENT FOR QUANTITATIVE ANALYSIS OF ALUMINUM ION**

**Katja Zajicek (Dr. Supaporn Kradtap Hartwell)
Department of Chemistry**



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**26. HYPHENATED TECHNIQUE FOR THE DETERMINATION
OF ORGANO-ARSENIC COMPOUNDS**

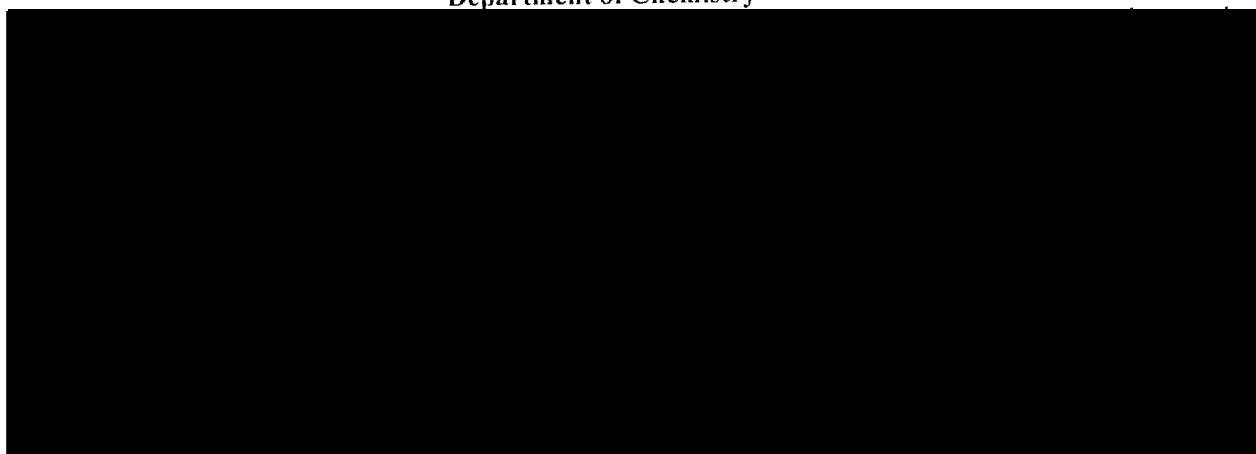
**Lindsey Bynum (Dr. Barbara M. Hopkins)
Department of Chemistry**



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27. DEVELOPMENT OF AN ANALYTICAL TECHNIQUE FOR ORGANO-TIN COMPOUNDS

**Mary Podlaski (Dr. Barbara M. Hopkins)
Department of Chemistry**



28. EDUCATIONAL FLASH PHOTOLYSIS SPECTROPHOTOMETRY

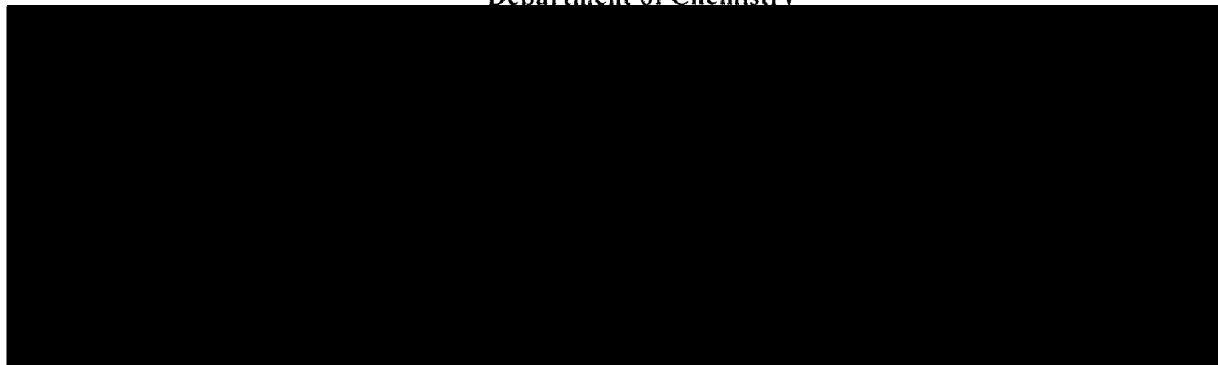
**Alexandra A. Schatz (Dr. Barbara M. Hopkins)
Department of Chemistry**



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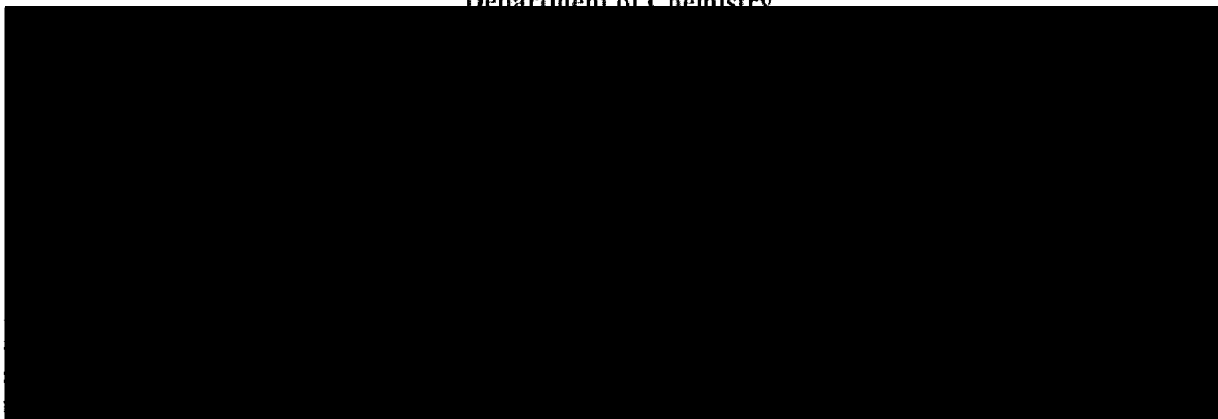
29. DETERMINATION OF THE CRITICAL MICELLE CONCENTRATION OF VARIOUS DETERGENTS VIA UV-VIS SPECTROSCOPY

**Alicia Dean (Dr. Daniel McLoughlin)
Department of Chemistry**



30. INHIBITION OF GLUTAMATE DEHYDROGENASE BY TRANS-RESVERATROL MAXIMIZING ASSAYS FOR UV-VIS SPECTROPHOTOMETRIC RATE DETECTION

**Natalie Foertmeyer (Dr. Daniel McLoughlin)
Department of Chemistry**



31. ATTEMPTS AT MODIFYING GLYCOCONJUGATE DIAZIRINE CROSSLINKERS TO INCREASE EFFICACY

**Shea Witkowski (Dr. Dionicio Siegel)
Department of Chemistry and Biochemistry
The University of Texas at Austin**



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32.

A FEW OF US

Instrumentation: Violin, Cello, Clarinet, Bassoon, Piano, Vibraphone, Non-Pitched Percussion and Three Narrators

**Andrew J. Levers (Dr. Kaleel Skeirik)
Department of Music**



For my Senior Recital I wrote a libretto and composed an original composition consisting of six scenes that reflect on social justice in contemporary Cincinnati, Ohio. It is staged with three narrators, each reading two juxtaposed texts. I was initially inspired to write this after working for the Society of St. Vincent de Paul in the West End last summer, as a social services representative. The stories I heard from my clients became the foundation of the narrative and are formed into two movements. The first contains three texts that portray social justice from the perspective of people who are in a position to help others, and the second contains three texts from the

perspective of those who are in need of help. My goal was to juxtapose these texts to show the various ways people feel about certain social issues, and at the same time reveal the connection of humanity among all parts of society. Each scene has its own unique instrumentation. A post-tonal style pervades the work such that there is no distinct key, but rather a group of unique melodic cells which relate to the segment of text being read at the same time. In my opinion as author and composer, I found this technique to be the most expressive in highlighting the important segments of text, but simultaneously refraining from drawing the audience's attention away from the story. The message of the entire work is "unity despite difference" and I wanted to portray it in every possible aspect of the piece. The work is semi-staged and is about fifteen minutes long.

33. ECONOMIC VULNERABILITY AND THE GENDER GAP IN VOTING

Ashley E. Freeland (Dr. Mack Mariani)

Department of Political Science



Since the late 1970s and early 1980s, female voters have supported Democratic candidates for the U.S. House of Representatives at a higher rate than male voters. Building on previous research which finds that family income is a key factor in voters' partisan preferences for elections, this study examines how gender differences in real and perceived levels of economic vulnerability have contributed to the emergence of the gender gap in voting.

34. CHARGED PARTICLE DYNAMICS IN THE MAGNETIC FIELD OF A LONG STRAIGHT CURRENT CARRYING WIRE

Ariel E. Prentice (Dr. Marco Fatuzzo)

Department of Physics



Although the motion of charged particles through electric and magnetic fields is a fundamental topic in electrodynamics, undergraduate texts generally limit their discussion to uniform circular motion of charges in uniform magnetic fields. Motivated by the desire to provide additional examples that are accessible to an introductory physics audience, we examine how charges move through the magnetic field produced by a long straight wire. We find that the formalism can be dimensionalized to a single parameter model when particles move perpendicular to the magnetic field, and that the motion of a charge depends solely on its (dimensionless) velocity when moving parallel to the wire. In addition, we find that the ensuing motion can be easily characterized in terms of a drift speed. Motivated by this result, we also explore the motion of the charged particle as viewed within the "drift" frame. While our analysis focuses primarily on two-dimensional motion, we also explore the more general cases of three-dimensional trajectories.

35. CREATING AND CONTROLLING AN ARRAY OF MAGNETIC NANOWIRES USING MAGNETOTACTIC BACTERIA

Timothy Horton (Dr. Heidrun Schmitzer, Dr. Steven Herbert, Dennis Tierney)

Department of Physics



Magnetic Nanowires are important for creating tiny transistors for microchips. We suggest an alternative, inexpensive way to create arrays of magnetic nanowires by using magnetic bacteria. Since their discovery by Richard Blakemore in 1975 magnetic bacteria have attracted attention due to their ability to grow single domain, cuboctahedral iron oxide (Fe_3O_4) nanoparticles. As biologists unravel the mechanism of magnetosome formation and magnetoreception, physicists become interested in their usefulness in nano-device fabrication. The cuboctahedral, single crystalline structure of the magnetosomes can help to align multiwalled carbon nanotubes during growth. Removed from their host bacteria, they can be placed as single linear chains in peptide nanotubes, where they then act like magnetic nanowires. The magnetosomes inside the bacterium *Magnetospirillum magnetotacticum* are 30-70 nanometer in size and we arranged them into patterns of nanomagnets by trapping the host bacteria with multiple optical traps. In our experiments we generated a 3 x 3 matrix of optical traps (2.3 mW each) and used a specially made current carrying coil around the sample to create a uniform magnetic field of about 1mT. This magnetic field preorients and flips the bacteria and their dipoles into the desired pattern of magnetic nanowires. Once aligned, we used the optical traps to affix the bacteria to the substrate. This work was funded by Cottrell Research Corporation and supported by a grant from the U.S. Government.

36. A COMPARISON IN THE PHYSICAL CHARACTERISTICS OF BICYCLE FRAME MATERIALS

Sean O'Connor (Dr. Steven Herbert, Dennis Tierney)
Department of Physics



Since the inception of the bicycle there has been great debate over the best material for bicycle manufacturing. The first mass-produced bicycles were built using steel. As time went on, the light weight and high strength characteristics of aluminum and titanium lead to the manufacturing of bicycles with these materials. More recently, carbon fiber composite materials are widely used. My research explored the physical properties of steel and aluminum bicycle tubes. By applying varying forces to the tubes so that the tubes were bent or torqued, I looked at the deflection of the tube as a function of the force applied, allowing me to compare the two materials. My data showed that the two materials have more similarities than previously thought.

37. THERMAL CONDUCTIVITY OF SILICA AEROGEL

Kyle P. Ritter (Dr. Steven Herbert)
Department of Physics



Aerogel is the dry, low-density, porous, solid framework of a gel isolated in-tact from the gel's liquid component. Aerogels are a diverse class of solid materials with a wide range of extreme properties; the most notable of which are the extreme low densities that can be reached. The most popular of this group of materials is silica aerogel, which is primarily made of silicon oxide. The structure the aerogel, along with the low density, makes it one of the best known thermal insulators. In order to efficiently measure the thermal conductivity of this gel and compare it to a number of other materials we placed the aerogel between two plates of a material with a known thermal conductivity and heated the top plate with a constant flow of thermal energy. By measuring the thermal flow across both the top and bottom plate, we determined the flow across the aerogel and calculated the thermal conductivity. We then repeated this test for the other materials and compared them to the aerogel.

38. ELECTRICAL BREAKDOWN VOLTAGE DEPENDENCE ON AMBIENT GASES

Yutao Zong (Dr. Steven Herbert)
Department of Physics



High voltage electrical devices may experience electrical breakdown (a spark or electrical discharge) for a variety of reasons and these discharges may often pose a safety hazard. This research examines the breakdown voltage dependence on the type of gas present and the different conditions that gas may present. The experiment focuses on two main areas: The electric breakdown voltage for different gases and the temperature dependence on the minimum electric breakdown voltage. In the first part, we measure and compare the breakdown voltage for five different gases: air, argon, nitrogen, helium and carbon dioxide. In the second part, we show that, as the temperature increases, the strength of the electric breakdown voltage decreases. We also explore contributing factors in the electrical breakdown in process.

39. NUMERICAL ANALYSIS OF EXCITABILITY SUPPRESSION BY THE M-CHANNEL IN A COMPUTATIONAL MODEL OF A SYMPATHETIC NEURON

Peter A. Smith (Dr. Justin Link)
Department of Physics



Despite current evidence that the opening and closing of membrane ion channels is an inherently stochastic process, Alan Loyd Hodgkin and Andrew Huxley's deterministic mathematical model of action potential initiation and propagation in neurons continues to have merit in analysis of specific ion channel roles at the cellular level. Previous work by other authors strongly support that a muscarinic acetylcholine receptor M1 inhibited potassium channel, commonly termed 'the M-channel', plays a critical role in controlling neuronal excitability due to its genetic links with epilepsy, benign neonatal type I (EBN1). Previous work has also shown that the presence of M-channels appears to be one of the primary contributors to the functional difference of phasic sympathetic neurons from tonic sympathetic neurons. A Hodgkin-Huxley style computational model based on previous authors' experimental measurements of rat phasic sympathetic neurons was implemented in NEURON 7.1. Model excitability, taken as the minimum frequency of sub-threshold excitatory post synaptic currents (EPSCs) needed to initiate an action potential, was measured as

several constants from the model's M-channel equations were varied. The constants varied included one representative of the channel density within the membrane, one representative of the membrane potential at which half the channels would open, and one representative of the membrane voltage range over which the channels can transition between open and closed states. The model's normal channel density constant was found to have occurred at a point after which the model experienced its greatest rate of decrease in excitability due to M-channel density increase. Thus, M-channel density in phasic sympathetic neurons appears to naturally occur at a point of optimal efficiency for excitability suppression, further supporting the belief that the M-channel's critical role is in control of neuronal excitability.

40. DEVELOPMENT OF A PROTOCOL TO STUDY THE THERMAL UNFOLDING OF THE MODEL PROTEIN CYTOCHROME C

Jessica H. Stavole (Dr. Justin Link)

Department of Physics



The function of a protein is inherently dependent upon the proper folding and the resulting tertiary structure of the molecule. The development of an unfolding procedure is desirable so that the structural stability of a protein molecule can be determined through the calculation of the change in free energy of the unfolding reaction. The protein cytochrome c has long been used in protein structural studies and monitored by circular dichroism (CD), absorption, and fluorescence spectroscopic techniques. Protein solutions containing various concentrations and buffers were unfolded using the newly developed thermal denaturation protocol. Thermodynamic properties such as enthalpy and the temperature midpoint were used to interpret the results. When denatured at either a lower pH or a higher acidic concentration, the proteins unfolded more readily.

41. LABELING AND THE SILENT FACTOR OF AGEISM IN PUBLIC PERCEPTIONS OF MENTAL ILLNESS

Desiree Green (Dr. Dalia Diab)

Department of Psychology



The current study investigated the effects of age and labeling of schizophrenia on public perceptions of individuals. Past research indicates that labeling of a mental illness has detrimental effects on people's views about the individual labeled. To study this phenomenon, brief scenarios were given to participants that manipulated the age of the man in the scenario as either 20 or 50 years old and whether or not he was labeled with schizophrenia or showed overt behaviors of schizophrenia with no label. Perceptions of the individuals were measured through desired social distancing, perceived social skills in the work environment, and perceived dangerousness. It was hypothesized that the younger male labeled with schizophrenia would be viewed more negatively than the older male labeled with schizophrenia, but regardless of age, the individual labeled would be perceived more negatively than the individual who only displayed behaviors of schizophrenia. There was a statistically significant effect for labeling on desired social distancing. Participants desired more social distance from individuals who were not labeled. Age also had a statistically significant effect on social skills in the workplace. Participants viewed the younger individual as having less social skills than the older individual. In all conditions participants had relatively similar negative perceptions of the individuals in the script, therefore, the term schizophrenia may have evoked beliefs about the individual in the script that were similar to the ones presented to participants in the nonlabeling condition.

42. THE EFFECT OF THE GENDER OF THE PERPETRATOR AND VICTIM ON PERCEPTIONS OF DOMESTIC VIOLENCE

Andrea L. Jordan (Dr. Dalia Diab)

Department of Psychology



The purpose of this study is to examine perceptions of heterosexual, male perpetrated domestic violence (DV), heterosexual, female-perpetrated DV, and gay and lesbian DV. It is hypothesized that participants will more accurately identify heterosexual situations of DV than they will homosexual situations of DV, and that they will be more likely to intervene in situations of heterosexual, male-perpetrated DV than they will be in situations of heterosexual, female-perpetrated DV and gay and lesbian DV. Participants' perceptions of publicly displayed DV are assessed by presenting them with one of four case studies that will depict one of the following: a violent situation with a male perpetrator and a female victim, a female perpetrator with a female victim, a male

perpetrator and a male victim, or a female perpetrator and a male victim. The participants then completed a survey in which they reported their perceptions of: the severity of the situation presented, their willingness to intervene in the situation presented, the perceived strength of the victim in relation to the perpetrator, and how severe the punishment for the perpetrator should be. Results of this study have implications for DV research.

43. FACTORS INFLUENCING PERCEPTIONS OF STRESS IN PRESENTATIONS

Kenneth T. McGrath (Dr. Dalia Diab)

Department of Psychology



There are several factors that could influence the amount of stress people experience in different situations. The purpose of this study was to investigate the effects of two factors on perceptions of stress when giving a presentation (a potentially stressful situation): experiencing the stress alone or sharing it with another person, and to whom the person is presenting.

Participants were college students enrolled in psychology courses, and they were given one of four hypothetical scenarios in which they had to imagine that they are presenting a business plan to increase quarterly sales to either a manager or a CEO of a company, and that they were either presenting alone or with a co-worker. Participants were then given a stress questionnaire to assess their perceptions of stress in the specific situation they read about. It is hypothesized that participants given the scenario in which they present alone and in front of the CEO of the company will report the highest levels of stress, whereas those given the scenario in which they present with a co-worker and in front of the manager of the company will respond with the least amount of stress. Results of this study have implications for stress research.

44. COLLEGE STUDENTS' PERCEPTIONS OF CYBERBULLYING

Sarah J. Mihovk (Dr. Dalia Diab)

Department of Psychology



With the recent increase and availability of information technologies, a modern form of bullying has surfaced. This type of bullying has been appropriately identified as "cyberbullying," as it takes place in cyberspace through the use of media like cellular phones and various online social networking tools. Cyberbullying is an extension of traditional bullying that allows for harmful harassment without person-to-person contact. Compared to

traditional bullying, the perpetrator's anonymity in cyberbullying often heightens the degree of harassment and makes it harder for the victim to escape (Smith, Mahdavi, Carvalho, Fisher, Russel, & Tippett 2007). Most previous research on cyberbullying involved participants under the age of 18, and therefore, this study focused on college students' perceptions and their ability to identify cyberbullying in different situations. Results of this study should enhance awareness of perceptions of cyberbullying in a college setting.

45. MINI-SKIRTS AND RELIGION: EFFECTS OF CLOTHING AND RELIGIOSITY ON PERCEPTIONS OF PROMISCUITY

Sadie M. Olson (Dr. Dalia Diab)

Department of Psychology



Clothing and religion help define a person's identity, but these are not the only factors. Mathes and Kempfer (1976) suggested that wearing a certain article of clothing could lead an outsider to perceive behaviors and attitudes that the wearer does not actually have or is aware of displaying. Due to this understanding, the consequences that could result from the perceived sexual attitudes could result in anything from misunderstanding to a

date rape situation. In addition to clothing, religious affiliation coincides with some sort of sexual morality for an individual person, especially for females (Rostosky, Regnerus, Wright, & Laurie, 2004; Simons, Burt, & Peterson, 2009). This idea can influence a perception either positively or negatively based on the behaviors displayed. This study was conducted to investigate the effects of clothing and religiosity on perceptions of promiscuity. Participants viewed a picture of a young woman either dressed in jeans and a sweater or a black dress or there was no picture viewed. After viewing the picture or not viewing a picture, the participants read background information that either mentioned religious belief or did not for the young woman. A survey then was administered to measure the perceived promiscuity of the young woman. A two-way between subjects analysis of variance was used to test the hypotheses. Results have implications for research in perceptions of promiscuity.

46. EFFECTS OF SIBLING COMPOSITION ON GENDER SOCIALIZATION

Natalie A. Varrone (Dr. Dalia Diab)

Department of Psychology



This study investigated whether or not sibling composition (i.e. single-gender networks, mixed-gender networks, and only children) has an effect on socialization with each gender of one's peers. The gender of the individual and the gender of the sibling(s) were investigated separately in this study. Socialization was measured through a scenario and a survey. Levels of social comfort, trustworthiness, and approachableness were measured among other social factors. Participants were college students enrolled in a psychology class. The results could possibly provide a better understanding of how people initially choose whom to socially interact with and how close relationships are formed. Sibling composition may be an important variable to consider when researching family, sibling, gender, and peer relations.

47. WHY GO GREEN?: MOTIVATIONS FOR PRO-ENVIRONMENTAL BEHAVIOR

Laura E. Wallace (Dr. Dalia Diab)

Department of Psychology



With the present ecological crisis, it is imperative to find ways to engage people in environmentally friendly behavior (Kolbert, 2006). Traditional sustainability messages have focused on scaring people into conserving resources. These messages have focused on the idea that if we do not change our behavior to become more environmentally friendly, our world will fall apart and resources will become very scarce. These messages tend to focus on saving the environment, but do not promote the connection that the environment has with human life (Louv, 2005). Furthermore, a significant gap between environmental attitudes and behavior exists (Kollmuss & Agyeman, 2002), which suggests that the current motivation provided for pro-environmental behavior is not working. In Ajzen and Fishbein's (1980) theory of reasoned action, socially normative behavior plays a significant role in determining whether people will act on their attitudes. Additionally, Dahm, Samonte, and Shows (2009) found that the strongest motivator for choosing to buy organic was to support a healthy lifestyle. Both conformity and health are motivations for environmentally friendly behavior that have not been widely used. The current study compared the affects of conformity, health, and conservation messages on environmentally friendly attitudes. Participants were recruited from the psychology department participant pool and randomly assigned to one of the message conditions or the control group. Those in conformity, health, and conservation conditions received a paragraph explaining the respective motivation for environmentally friendly behavior. Then all participants completed Milfont and Duckitt's (2004) environmental attitudes scale. A one-way between subjects analysis of variance was used to analyze the data and a post-hoc test was conducted to determine which means were significantly different from each other. Understanding which type of message is most persuasive to people can help to restructure the sustainability movement to change the behavior of more people more effectively.

48. FUNNY OR NOT? THE EFFECT OF PERSONAL BELIEFS ON THE INTERPRETATION OF SATIRE

Molly E. Boes (Dr. Cynthia Dulaney)

Department of Psychology



Satire is a literary device used by authors to ridicule topical issues through irony, sarcasm, and other similar methods and can often be misinterpreted by readers. The relationship between how an individual's personal beliefs influence their recognition of satire was examined. It was hypothesized that individuals who supported same-sex marriage would be more likely to correctly identify a satire about same-sex marriage as satirical whereas people who did not support same-sex marriage would be less likely to identify a piece as satire. Seventy participants read a satire about same-sex marriage. Afterwards, participants completed a questionnaire to indicate their beliefs on same-sex marriage and whether or not the participants recognized the piece they read as satirical. A Pearson correlation test showed there was no relationship between support of same-sex marriage and recognition of satire, $r(70) = -0.08, p < .54$. Contrary to prior research, these results indicated that personal beliefs did not correlate with an individual's degree of recognition of satire.

49. YOU'RE CUTE, BUT WOULD I WANT TO DATE YOU?: EFFECT OF PERSONALITY TRAITS ON ATTRACTIVENESS AND DATING DESIRABILITY

Elise Cronin (Dr. Cynthia Dulaney)

Department of Psychology



Much research has been done on what factors make a person seem attractive, such as smiling (Magda & Goodwin, 2008), personality traits (Lewandowski et al., 2007) and familiarity (Kniffin & Wilson, 2003). The current study examined if the perceived attractiveness of males is affected by descriptions of positive or negative personality traits. Female participants viewed pictures of 8 males. Each picture included a paragraph that described either three positive personality traits or three negative personality traits, or no paragraph at all. Participants were then asked to rate the attractiveness of the male in each picture as well as the likelihood that they would date them. Preliminary analyses suggest that males who were described with no traits or positive traits were rated as more attractive and more likely to be dated by the participant than those males described with negative traits. These findings support previous research indicating that presentation of positive traits increases attractiveness and desirability of individuals.

50. EMPATHY AND ATTITUDES: DO FEELINGS OF EMPATHY FOR A MALE HOMELESS INDIVIDUAL DIFFER FOR FEELINGS OF EMPATHY TOWARD A FEMALE?

Lauren Enty (Dr. Cindy Dulaney)

Department of Psychology



Past research (Batson et al., 1997) has shown that feelings of empathy are felt toward homeless males. However, little research in psychology has examined empathy toward homeless females. Past research (Batson et al., 1997) has also demonstrated that feelings of empathy are highest when the victim is not responsible for their situation. The researcher hypothesized there would be a statistically significant difference in empathy felt toward female homeless individual in the victim not-responsible condition and the male homeless individual in the victim-responsible condition. Participants viewed a video of either a female or male homeless individual speaking of their personal experiences of daily activities and struggles of being on the streets. A biography of the individual was attached to the surveys and conditioned the individual responsible or not responsible for their situation. Participants then completed two surveys that assessed their empathy felt toward that homeless individual and the homeless population in general. A Gender (male vs. female homeless individual) x Responsibility (responsible vs. not) ANOVA was conducted on these variables. Contrary to the hypothesis, the results suggest that gender differences of the viewed homeless individual do not affect empathy felt toward homeless individuals. The data also shows that despite a condition where the homeless individual is not responsible for their homeless situation, low amounts of empathy are measured, and negative stigmas toward that group persist.

51. TANNING YOUR WAY TO MELANOMA: INFORMATIONAL EFFECTS ON INTENTIONS TO USE TANNING BEDS

Sarah A. Lee (Dr. Cynthia Dulaney)

Department of Psychology



Every day, more than one million people who use tanning beds in the United States (Skin Cancer Foundation) despite scientific evidence that exposure to ultraviolet (UV) radiation is the cause of melanoma. This study explored whether the knowledge of sunless tanning alternatives reduces a person's intention to use tanning beds. Participants were randomly assigned to one of three conditions: control, anti-tanning advertisement and article, or anti-tanning advertisement, article and information about sunless tanning products. The article presented information regarding the relationship between UV radiation and melanoma susceptibility. Consistent with the hypothesis providing participants with knowledge of sunless tanning products reduced their intention of using tanning beds, $\chi^2(2, N = 74) = 6.70, p < .05$. Specifically, 76% of participants who received information about sunless tanning products responded they would be more likely to consider using sunless tanning products instead of a tanning bed. In contrast, 54% of participants in the control condition and 40% of participants who received only the advertisement and article responded they would be more likely to consider using sunless tanning products instead of a tanning bed. Results demonstrate that education on sunless tanning alternatives may decrease intention to use tanning beds thereby decreasing the prevalence of melanoma.

52. SHOULD COLLEGE STUDENTS PLAY VIDEO GAMES TO REDUCE STRESS?

Aimee E. Rich (Dr. Cindy Dulaney)

Department of Psychology



Previous research has suggested that violent video games have negative effects on individuals, such as aggression and stress (e.g., Kieffer & Nicoll, 2005). However, research has also suggested that physical activities may alleviate stress (Corazon et al., 2011). The current study examined the effects of physically interactive violent video games on undergraduate students' stress level. Participants completed the Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995) to measure their stress level before the experiment started. Next, the participants were randomly assigned to play either a violent video game (Wii Boxing) or a non-violent game (Wii Super Mario) for 25 minutes. Participants then completed the Depression Anxiety Stress Scale again as well as the Buss-Perry Aggression Scale (Buss & Perry, 1992). A Game (violent/non-violent) x Test (pre/post) ANOVA was conducted on stress scores. Contrary to the hypothesis, the results indicated that there was no significant main effect for Game, $F(1,32) = 2.20, p < .15$, or Test, $F(1,32) = .33, p < .57$. Results also showed no interaction between Game and Test, $F(1,32) = .33, p < .57$. In addition, there was no difference in aggression between participants who played the Super Mario game or the Wii Boxing game, $t(32) = 1.55, p = .13$. Contrary to previous research, the results indicated that neither violent video game play nor non-violent video game play had any effect on stress reduction or aggression. In addition, the physical activity of the boxing game did not reduce stress.

53. THE EFFECT OF MEDITATION ON AGGRESSION

Timothy J. Shumrick (Dr. Cynthia Dulaney)

Department of Psychology



The impact of mindfulness meditation on emotional regulation has been well demonstrated through studies which indicate that meditation positively impacts stress management ability (Oman et al., 2008), and can help to diminish psychological distress (Verma & Araya, 2010). This study investigated if meditation could diminish aggression. All participants were primed for aggression through the viewing of a video clip depicting scenes of warfare. Participants received a pre-test and post-test questionnaire on aggression. Following the pre-test, participants in the Meditation group did 5 minutes of mindfulness meditation based on Zen meditation. Participants in the Comedy group viewed a comedic video approximately 4 minutes in length. Participants in the Control group were allowed free time within the classroom for 5 minutes. A Group (Meditation, Comedy, & Control) x Test (pre vs. post) ANOVA was conducted on aggression scores. Results indicated there were no significant main effects or interactions, $F_s < 1$. Contrary to expectations, results indicated that meditation did not have a significant effect on primed aggression. Previous research has shown that the effects of meditation are most pronounced in those who practice regularly. In light of findings of the present study, it appears that a single instance of meditation is not sufficient to reduce aggression.

54. FROM RAGS TO RICHES: THE EFFECTS OF SYSTEM-JUSTIFICATION ON EMOTIONAL DISTRESS AND PERCEPTIONS OF ECONOMIC INEQUALITY

Steve Webb (Dr. Cynthia Dulaney)

Department of Psychology



The distribution of wealth in the United States consists of a small percentage of people who possess most of the nation's wealth while a significant number of Americans live in poverty. According to System-Justification Theory (SJT), people are motivated to defend and bolster current societal arrangements to reaffirm its fairness and legitimacy (Rankin et al., 2009). It expands the concepts of individual and group justification to explain why many people experience emotional distress when the status quo is threatened with significant changes (Mallett et al., 2011). The present study examined the effect that SJT and emotional distress play in the perceptions of economic inequality. Participants ($n = 92$) were randomly assigned to read either a high (rags to riches) or low (economic disparity) system-justification scenario relating to economic mobility. Participants were given an emotion test designed to measure their immediate emotional responses and asked about their views on economic inequality. It was hypothesized that participants would experience greater emotional distress under the low system-justification scenario, whereas participants with the high system-justification scenario would be more likely to perceive economic inequality as an evitable aspect of society. Contrary to the hypothesis, reading the high system-justification scenario did not increase the perceptions of economic

inequality, $t(89) = 1.42, p = .16$. However, participants who read the high system-justification scenario reported significantly less emotional distress, $t(89) = 6.17, p < .001$. These findings indicate that even when self-reported perceptions of economic inequality are seemingly unaffected, there is still an emotional reaction to reading stories about economic mobility.

55. POOR FAMILY SATISFACTION'S RELATION TO POSITIVE PEER SATISFACTION, DOES GENDER MATTER?

Meredith L. Anderson (Dr. Christian End)

Department of Psychology



All humans have the need to belong. If children are neglected by their families, the children's sense of inclusion in the family and/or community may be lacking. Children may turn to their peers to fill this void. The purpose of this study is to examine whether children utilize peers when familial satisfaction is low. College students (13 men, 44 women) completed a Family Satisfaction Scale (Olson, 1980) and a Friend Satisfaction Scale (the same scale used to measure family satisfaction with the word family replaced by friend). The Family Satisfaction Scale which includes 10 statements concerning family relations (i.e. "The quality of communication between *family* members"). These statements are then rated on a five-point Likert scale, 1 = *Very Dissatisfied* to 5 = *Extremely Satisfied*. The Friend Satisfaction Scale is the same scale, with the statements including the word 'friend' (i.e. "The quality of communication between *friends*"). These statements are then rated on a five-point Likert scale, 1 = *Very Dissatisfied* to 5 = *Extremely Satisfied*. The participants then wrote out how many acquaintances, friends, and close friends they believed themselves to have. Demographic information was also collected. The items of the Family Satisfaction Scale were summed to create a Total Family Satisfaction ($M = 34.58, SD = 8.73$), and the items of the Friend Satisfaction Scale were summed to create a Total Friend Satisfaction ($M = 36.98, SD = 6.79$). With both scales, the higher the total score, the higher the satisfaction. Contrary to the hypothesis, the results of a bivariate correlation indicated, although positive, no significant correlation between the Family and Friend Satisfaction total scores ($p = .18$). There is a valid result in observing that family and friendship are two very unique constructs. *T*-tests were run to determine if gender differences in the Family Satisfaction Scale $t(55) = .38, p = .71$ and the Friend Satisfaction Scale $t(55) = .41, p = .69$ exist. However, no gender differences were significant within this study.

56. MENTAL TOUGHNESS: THE EFFECT OF PAST INJURIES ON ATHLETES

Naureen T. Asif (Dr. Christian End)

Department of Psychology



When Division I athletes are injured, they primarily focus on the physical aspect of recovery; however, less attention is paid to mental recovery. Mental toughness has been consistently defined as maintaining focus under pressure, staying motivated, working hard to achieve set goals, and being able to cope with pressure (Butt, Weinberg, & Culp, 2010). By focusing on the upkeep of mental toughness, athletes will feel less fear of reinjury, less concern about reaching pre-injury performance levels, and less concern with seeing immediate improvements when returning to sport (Podlong & Eklund, 2006). One of the aims of this study is to find if Division I athletes who have not suffered from a severe injury (an injury that has kept an athlete from training sessions or games for at least 21 days) in the past are more mentally tough than athletes who have suffered from a previous severe injury. Since Division I athletes are a small sample of the most skilled athletes in the country, there may not be a difference in mental toughness between injured and non-injured elite athletes. Male and female Division I athletes ($N = 92$) completed an Injury History form, detailing whether or not they had been injured in the past, the type of injury, the type of rehabilitation process, and how long they attended the rehabilitation sessions. Participants also indicated their perceived level of mental toughness. Participants then completed the Mental, Emotional, and Bodily Toughness Inventory (MeB-Tough) which calculated a mental toughness score. An independent samples *t*-test was used to compare results between non-injured and injured athletes. Results revealed no differences between the mental toughness of injured athletes ($M = 175.31, SD = 21.30$) and non-injured athletes ($M = 171.50, SD = 17.46$), $t(90) = -0.83, p = .41$. These results imply that, in general, all Division I athletes are mentally tough, and whether or not they have been severely injured in the past is unrelated to their mental toughness.

57. IMPACT OF GROUP MEMBERSHIP ON SPECTATORS' FACIAL EXPRESSIONS

Gregory T. Hartman, Alana C. Montenegro, Kate M. Sherman (Dr. Christian End)

Department of Psychology



This study focuses on how group membership affects spectators' facial expressions while attending basketball games. Previous research indicates that sports spectators smile more when interacting with other spectators than when alone (Ruiz-Belda, Fernandez-Dols, Carrera, & Barchard, 2003). Additionally, social identity theory dictates that individuals feel less

inhibited within a group, leading to stronger reactions (Tajfel, 1978, Tajfel & Turner, 1979). Elaborating on past studies, the researchers estimate that those seated in a group (adjacent seats filled) will exhibit stronger facial reactions in response to game events than those not seated in a group (zero or one adjacent seats filled). Using recorded footage of spectators at men's basketball games, the researchers randomly selected game events (turnovers, baskets, etc.) that might elicit an emotional response and cropped a spectator's facial reaction to the event. Two coders blind to the hypothesis of the study and to whether or not the spectator was sitting in a group, coded the faces. The coders utilized two established facial expression scales (Sloan, 1979 & Ekman, 1980) for each image rating the degree to which various emotional descriptors (proud, angry, etc.) accurately described the facial expressions displayed. *T*-tests were performed to determine differences in the intensity of facial expression between the two conditions.

58. THE EFFECTS OF CONSISTENCY OF TONALITY ON MEMORY

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Department of Psychology



Context-dependent memory (CDM) refers to the change in context between information learning and the retrieval of information which may cause some of the original information to be forgotten. (Mead & Ball, 2007) Mead and Ball, (2007) found that consistency in key of music allowed participants to recall more words in a word recall test. This study provided a starting point for the current study, which focuses on how tonality (consistency of key or change in key) may promote CDM effects during recall. Using Iverson and Franzen's (1989) standard recall task, 143 participants listened to a piece of music while a list of 21 words was read to them by the researcher. The participants completed the Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegan, 1988) to divert participants from realizing a change of key. The PANAS consisted of 20 adjectives (10 positive, 10 negative). The items were summed and the positive (Cronbach's alpha = .87) and negative (Cronbach's alpha = .78) subscales were found to be reliable. Participants were instructed to read two different lists of words and indicate which words they remembered hearing. While completing this task, participants listened to the same musical piece they heard at the original reading of the words or the musical piece in a different key. A percent correct score was calculated by dividing the number of correct responses by total number of items (42). Thus, a 2 (learning tone: Major vs. Minor) x 2 (recall tone: Major vs. Minor) design was used. Results of a *t*-test revealed that percentage of correctly recalled words did not differ between participants who were in a consistency group ($M = 82.32, SD = 11.11$) and participants in change of key groups ($M = 80.13, SD = 9.29, t(140) = -1.28, p = .20$). The percentage recalled for the second attempt was lower than the initial recall scores ($M = 78.78, SD = 13.07$), in the consistency group, and the change of key group ($M = 77.55, SD = 12.96, t(140) = -.56, p = .57$). This study did not find reason to suggest that CDM effects can be found in changes of key of music.

**59. GENDER AND GEOGRAPHIC DIFFERENCES IN SPORTS IDENTIFICATION ACROSS
NBA AND NHL CITIES**

Matthew J. Maley, Laura E. Wallace, Eileen S. Borczon, Megan E. Bowling, Camille M. Frommeyer, Shelby A. Mytyk, Kate M. Sherman, Emily L. Shultz (Dr. Christian End)

Department of Psychology



Identification with sports can be an important aspect of one's self-concept. Previous research has indicated that

men tend to identify with sports more than women in their obituaries (End, Meinert, Worthman, &

Mauntel, 2009). Researchers randomly selected 23-30 obituaries from each of the 42 cities in the NHL and/or NBA through newspaper websites. Researchers coded for references to identification with a sport (fan of the city's NHL and/or NBA team or participant), mention of occupation, level of education, nationality, religion, and non-sport leisure activities (99.6% interrater agreement). There were significant gender differences in obituaries mentioning an association with sport for the NBA, $\chi^2(1) = 24.44, p < .001$, with 32.1% of males' obituaries mentioning general involvement with sports and 16.5% of females' obituaries mentioning general involvement with sport. There were also significant gender differences in obituaries mentioning an association with sport for the for the NHL, $\chi^2(1) = 10.96, p < .001$, with 25.9% of men mentioning sports and only 16.4% of women identifying general involvement with sports. This may be due to more prevalent socialization of males than females to play sports and to identify as a fan. Although the percentage of fanship varies widely across geographic regions (range = 0% to 26.6%), there was not a correlation between sports identification and the length of time the hometown NHL or NBA team had been in existence. Possibly, geographic differences could result from the amount of other leisure activities available in a particular region or differences in climate. Future research could examine what geographic factors help determine social identity.

60. THE EFFECTIVENESS OF RELAXATION TECHNIQUES ON REDUCING STRESS

Matthew J. Maley (Dr. Christian End)

Department of Psychology



The effects of stress are felt by everyone. This study focused on two popular relaxation techniques progressive muscle relaxation (PMR) and guided imagery (GI), in an attempt to determine if one of these techniques offers a more effective way to lower stress levels. Participants included 88 college undergraduates taken from Xavier University's participant pool. Participants were randomly assigned to one of three groups: PMR, GI, or a control group.

Participants filled out several questionnaires assessing stress levels upon arrival. After completing the questionnaires, they participated in either 15 or 25 minute session of their assigned technique, and then completed the same questionnaires again. The pre-post test results were compared two different ways, a between groups comparison was used to differentiate the effectiveness of the different types of relaxation technique, and a within group comparison was completed to determine if the duration of the session had a significant effect on participant stress reduction. Results indicated that all three groups exhibited a reduction in stress, but there was not a significant difference between either of the experimental groups and the control group. Also, there was not a significant difference between the effectiveness of the different session lengths.

61. GENDER AND GEOGRAPHIC DIFFERENCES IN SPORTS FAN IDENTIFICATION IN THE OBITUARIES OF NFL CITIES

Matthew J. Maley, David N. Schappler, Sadie M. Olson (Dr. Christian End)

Department of Psychology



There are many ways by which people define themselves, yet an overlooked aspect of an individual's self concept is his or her affiliation with sports. While jersey ownership may be one way fans indicate the importance of their affiliation with a team, another way to truly identify a die-hard fan is whether information

about one's identification with a sport or team appears in the individual's obituary, even when the obituary is written by family or friends. End, Meinert, Worthman, and Mauntel (2009) investigated the presence of sports fan identity in obituaries and found gender differences in regards to the percentage of obituaries that declared the deceased individual's participant in sport and fan identification. The current study has been created to further the previous research by investigating if there are any gender differences or geographical differences in the occurrence of National Football League (NFL) fans' identification in obituaries. In order to obtain the obituaries, the researchers randomly selected 25-30 obituaries from the web sites of newspapers distributed in 30 of the 31 cities who are home to a NFL team (Oakland obituaries were inaccessible) resulting in a total of 885 obituaries. Researchers coded the content of the obituaries for the absence or presence of the following information: the deceased individual's sport identification (as either a participant and/or fan), mention of a hometown team identification, education level, and employment. Consistent with previous research (End et. al., 2009), chi-square analyses indicated that males were more likely to with sports than women, $\chi^2(1) = 23.01, p < .001$.

62. DO AS I SAY: THE EFFECTS OF STUTTERING ON PERCEPTIONS OF LEADERSHIP

Brenda Miller (Dr. Christian End)

Department of Psychology



Previous research has established a consistent, negative stereotype (characterized by such traits as shyness, nervousness, and anxiousness) associated with individuals who stutter (Boyle, Blood, & Blood, 2009; Doody, Kalinowski, & Armson, 1993; MacKinnon, Hall, & MacIntyre, 2007). Despite having knowledge about stuttering, people continue to attribute negative traits to people who stutter, which can lead to the stutterer experiencing social anxiety. The purpose of this study was to examine if stuttering had an effect on participants' perceptions of leadership. Participants listened to an audio recording of the same health advice administered by a doctor who either stuttered (at a 14% frequency varying between three different types of stuttering) or a doctor who maintained a non-stuttering speech pattern. Participants then completed a health information seeking scale to establish credibility, a charismatic leadership scale to assess leadership, and Wood and William's (1976) bipolar adjective scale that assesses the valence of the stuttering stereotype. Despite receiving similar ratings in terms of credibility and charismatic leadership qualities, the stuttering doctor was rated with more traits consistent with the negative stuttering stereotype than the doctor who did not stutter. Results suggest that people are able to acknowledge leadership despite stuttering, but still display a negative stereotype towards individuals who stutter.

**63. MORE THAN JUST ANOTHER FACE IN THE CROWD:
THE EFFECTS OF WINNING AND LOSING ON SPECTATORS' FACIAL EXPRESSIONS**

Brenda Miller and Kate Sherman (Dr. Christian End)

Department of Psychology



Athletic events often elicit many different emotions from spectators. Even when masked with face paint, facial expressions are apparent. Previous research has revealed that sport spectators rarely engage in happy facial expressions (smiling) while watching happy events, such as scoring a goal at a soccer game or getting a strike while bowling (Ruiz-Belda, Fernandez-Dols, & Carrera, 2003). The purpose of this study was to examine a "sad event" (the home team missing a three point shot) and how the response might be affected by the score of the game (home team winning or losing). It was hypothesized that when the score favored the home team, the negative responses to a missed shot would be buffered. Specifically, spectators would display more negative facial expressions (frowning and grimacing) when their team missed a three point shot while losing in comparison to instances when their team maintained a lead. Two individuals, who were unaware of the score of a game, rated previously recorded spectators' facial expressions following an unsuccessful three point attempt. The raters used the Multiple Affect Adjective Checklist (Sloan, 1979) and Ekman's (1980) facial expression measure. These scales contained a series of both positive and negative adjectives which were rated using an eight point likert scale (higher scores indicating that an adjective accurately described the facial expression of the spectator). Twenty five facial expressions were examined when the team missed a three point shot in both conditions: winning and losing. A series of *t*-tests were used to compare the spectators' facial expressions while winning to the spectators' facial expressions while losing.

64. HELPING THE HELPER: HOW VOLUNTEERISM AFFECTS SELF-ESTEEM AND MOOD

Kayla M. Neal (Dr. Christian End)

Department of Psychology



Volunteer work is encouraged at most colleges and universities and is highly regarded by employers, making its effects on the college volunteers important to assess. Past research indicates that an individual's personality and the type and structure of the volunteer activity in which they are involved predict the potential benefits of volunteerism (Hamilton & Fenzel, 1988). This study examined the relationship between a 10-minute volunteer experience and college participants' consequential mood and self-esteem. It was hypothesized that participants involved in the volunteer experience would score higher on the Positive Affect Subscale (Watson, Clark, & Tellegen, 1988) and Rosenberg Self-Esteem Survey (Rosenberg, 1965) than the control groups. Undergraduate students (69 women, 25 men, $M_{age} = 19.41$, age range: 17-22 years) were randomly assigned to one of three conditions. The control group completed the PANAS Scale (Watson, Clark, & Tellegen, 1988), the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and a Volunteer History Survey. A second control group

created a greeting card for a person of their choice before completing the same three questionnaires. The procedure for the experimental volunteer group was identical to the second control level with the exception of being prompted to complete the card activity for a child with a terminal illness. Each participant in the volunteer group was provided with a brief biography of a child battling a terminal illness from the Hugs & Hope for Sick Kids Club website. The site was created to provide encouragement to terminally ill children via “happy mail,” notes of support. In order to test whether participation in a volunteer activity influenced participant' mood, a one-way ANOVA was used to compare mood across the three activity levels. An analysis of variance showed that participation in the volunteer activity did not significantly impact positive mood, $F(2,91) = 2.39, p = .097$, nor negative mood $F(2, 91) = 1.25, p = .291$. It also did not have a significant impact on self-esteem, $F(2,91) = .17, p = .85$.

65. BUZZER BEATING EMOTIONS: EMOTIONAL DISPLAYS IN THE FINAL TWO MINUTES OF A BASKETBALL GAME

Sadie Olson, Avelina Padin, Emily Shultz (Dr. Christian End)

Department of Psychology



The purpose of the present study was to investigate sports fans' emotional reactions in the final two minutes of a basketball game. Previous research has shown that fans exhibit emotional responses to sporting events both during and after the game (Bizmon & Yinon, 2002; Kerr, Wilson, Nakamura, & Sudo, 2005; Wann, Royalty, & Rochelle, 2002). Because it is easy to attribute the outcome to a play that occurred at the end of a game, it is possible that fans perceive events that occur at the end of a game to be more critical in determining the outcome of a game than earlier events. Therefore, it would seem that emotional responses during the last two minutes of a basketball game would be more intense. To examine this further, researchers videotaped fans' emotional responses during four Xavier men's home basketball games and obtained still images of their facial expressions in response to specific events (i.e. three-point shots, fouls, turnovers, etc.) A random sample of the still images was selected from the footage of the fans during the last two minutes of the games as well as footage of the fans prior to the last two minutes. Researchers who were blind to the hypothesis of the study coded fan emotions using adaptation of two pre-existing measures: the Multiple Affect Adjective Checklist (Sloan, 1979) and a scale created by Ekman (1980) which both require coders to rate a fan's expression on various emotional descriptors (i.e. "anger") using a Likert scale ranging from one (*extremely inaccurate*) to eight (*extremely accurate*). *T*-tests were used to determine if spectators' faces expressed higher levels of emotion during the last two minutes of a basketball game.

66. EFFECTS OF ADVERSITY ON TEAM BUILDING DURING COOPERATIVE PLAY

David N. Schappler (Dr. Christian M. End)

Department of Psychology



Video games have undergone much scrutiny within the past 10 years over potential benefits (e.g. improved responsibility) and drawbacks (e.g. less time for academics) for players. Previous research established that video games help build teamwork between the players (Anderson, 2010; Craighead, 2009). The present research aimed to identify whether or not difficulty of the video game had an effect on strength of team building between partners. Participants ($N=60$) played one match or for 15 minutes, whichever came first, of Virtua Tennis 2009. Participants played on either very easy or normal difficulty, depending on condition. Participants then filled out a packet containing the Group Environment Questionnaire (GEQ; Carron, Brawley, & Widmeyer, 1985) which assesses team cohesion, Positive Affect/Negative Affect Scale (PANAS; Watson & Clark, 1988) which assesses mood, and a modified version of the Prisoner's Dilemma logic game which assesses partner loyalty. Results indicated no statistically significant differences between the very easy group and normal group for any of the scales ($p > .05$). The results suggest that while playing video games may improve team building, the difficulty of the video game may have no effect. Future research should identify more variables that affect cooperative video game play.

67. **INFLUENCES OF EDUCATION ON DOMESTIC VIOLENCE PERCEPTIONS**
Sydney L. Sonderman (Dr. Christian End)

Department of Psychology



Domestic violence affects one in four women in their lifetime. Past research has suggested that education affects attitudes toward domestic violence. The study's purpose was to determine if college students with exposure to domestic violence issues through their courses would be less likely to blame the victim than students with no course exposure. A convenience sample of 20 undergraduate students who were exposed to domestic violence in their coursework and 99 who were unexposed completed The Domestic Violence Blame Scale (Bryant & Spencer, 2003) in order to assess blame attributed to the victim, perpetrator, society, and the situation. Results indicated that all participants, regardless of class exposure, were not likely to blame the victim for domestic violence. Students with course exposure were more likely than students with no class exposure to blame society for domestic violence. Domestic violence is a complex issue that cannot be understood or changed overnight, although the public's perceptions of the causes of domestic violence will most likely influence those efforts.

68. **GENDER AND GEOGRAPHIC DIFFERENCES IN MLB's SPORT FAN IDENTIFICATION IN OBITUARIES**

Laura E. Wallace, Greg T. Hartman, Sadie M. Olson, Avelina C. Padin, David N. Schappler (Dr. Christian M. End)

Department of Psychology



Identification with sports can be an important aspect of one's self-concept. Previous research has indicated that men tend to identify with sports more than women in their obituaries (End, Meinert, Worthman, & Mauntel, 2009).

Researchers randomly selected 25-30 obituaries from 27 of the 28 cities in MLB through newspaper websites (obituaries for the city of Oakland were inaccessible). For 22 of the cities, the sampled obituaries appeared in the newspapers from August 2010 to August 2011. Researchers coded for references to identification with a sport (participant, spectator, or fan of the city's MLB team), mention of occupation, level of education, nationality, religion, and non-sport leisure activities. This study found support for the previous finding that there are significant gender differences in identification with sports, $X^2(1) = 2.52, p = .11$. Specifically, deceased males were more likely to be described as sports fans (11%) than females (6.9%). This may be due to more prevalent socialization of males than females to play sports and to identify as a fan. Although the percentage of fanship varies widely across geographic regions (range = 0% to 20.6%), there was not a correlation between sports identification and the length of time the hometown MLB team had been in existence. Possibly, geographic differences could result from the amount of other leisure activities available in a particular region, differences in climate, or how individuals construct their identities in different locations. Future research could examine what geographic factors help determine social identity.

69. **THE RELATIONSHIP BETWEEN COLLEGE STUDENTS' AUTISTIC TRAITS, POPULARITY, AND PERCEPTIONS OF AUTISM**

Mitchell L. Woodruff (Dr. Christian End)

Department of Psychology



Children who have been diagnosed with autism display stereotyped behaviors (e.g., inflexible to adjustment, repetitive motor movements, abnormal intensity), as well as deficiencies in social interaction and communication (American Psychiatric Association [APA], 1994). When displayed in public, these behaviors and deficiencies do not conform to the social norms we expect children to display and their behavior is perceived negatively. Seeing as the autism spectrum has been shown to extend into the general population (Baron-Cohen, Wheelwright, Skinner, Martin, & Clubley, 2001), people should not be so quick to judge these children. The following study was conducted to examine the relationships between participant's scores on the Autism Spectrum Quotient (AQ) and the Adjective Checklist, and their perceived popularity to determine who perceived children with autism most favorably. The results indicated that AQ scores were significantly related to perceived

popularity, $r(92) = -.303$, $p = .003$, and the amount of invites one receives to social events, $r(92) = -.317$, $p = .002$. These results indicate that the more autistic tendencies a person displays, the less popular they perceive themselves to be, and the less autistic tendencies displayed, that person will have an increased number of invites to social events by friends in a week. The results failed to indicate a significant correlation between scores on the AQ and participants' attitudes toward a child with autism, and between participants' perceived popularity and their perception of a child with autism.

ORAL PRESENTATIONS

Please consult posted signs for room assignments and times.

FREUDIAN DISCONTENT IN EURIPIDES' *MEDEA*

Brendan Chisholm (Dr. Timothy Brownlee)

Department of Classics



What were Medea's motives in Euripides' play? How can the slaughter of both her children and the Corinthian royal family be explained? Freud's account of the origin and exercise of civil dissatisfaction in his 1930 work *Civilization and its Discontents* can be applied to the *Medea* to answer these questions. Specifically, the instinctual tensions heightened by society as established by Freud are apparent in Medea's outburst in the play. In my discussion, I will briefly outline Freud's account of happiness, the libido, and the death instinct and the role they play in modern society, with particular emphasis on the way the activities of civilization require the energy of the libido. I will show that, in Freud's view, these activities were primarily the responsibility of the men, thereby leaving the women in a state of libidinal frustration. From there, in an examination of the play itself, I will show that Medea's actions were both the result of her frustration at the redirection of Jason's libido and an expression of her death instinct.

IRAE ANIMIS CAELESTIBUS: THE REDEFINITION OF THE EPIC HERO FROM VERGIL TO MILTON

Alexander G. Green (Dr. Shannon Byrne)

Department of Classics



Paradise Lost demonstrates an evolution of the traditional epic hero through Milton's portrayal of Satan as a pagan hero like Aeneas in the *Aeneid* and his interpretation of a Christian hero through Adam. When looking at the pagan heroes and Christian heroes, their qualities fundamentally different. Satan is modeled after the pagan Aeneas and overcomes his pagan predecessors through his tragic portrayal and introspective nature. Milton then celebrates Satan's heroism through an ironic triumph, and places Adam as a new type of Christian hero through his heroic martyrdom and interaction with pagan heroism as displayed through a vision of the future.

DIONYSUS FUELING EXCESS: BALANCING MYTHOLOGY AND SOCIAL VIRTUE

Michael J. Zalenski (Dr. Shanon Byrne)

Department of Classics (HAB)



As the Athenian *polis* began to transition into a democracy, the virtue of moderation became a critical virtue to all Athenians. Evidence from tragedy, philosophy, and archaeology support this by defending moderation in all aspects of life. Despite placing such importance on the virtue of individuals, the classical Athenians held the god of wine and madness in the center of their most sacred rituals. At the same time, the Dionysian rituals of the mystery cult and the *symposion* encouraged excessiveness in actions and social attitudes. These rituals become related to Dionysus because Dionysus is metonymy for wine, excessiveness, and release. There is a contradiction in the social structure of fifth century Athens between Dionysian excess and Athenian moderation. Although this contradiction is never reconciled, the mythology of Dionysus allow these paradoxical customs to coexist. Throughout my paper, I show this contradiction and explain how glaring it was especially in classical Athens. Then by using the mythological model of Dionysus, I show that the god demands the

worship of every individual through cathartic release. If someone worships the god, he will protect them, but if they refuse the god, they will become Dionysus either in his madness or destruction. Therefore, the mythology of Dionysus encourages this contradiction within society. Because of Dionysus' ambiguous nature, these contradictory functions are acceptable within the social structure of Athens. By proving the paradoxical nature of the god, I argue that Dionysian mythology encouraged the words of Oscar Wilde, "all things in moderation, including moderation".

THE ROLE OF THE ROMAN MOTHER AND ETRUSCAN INFLUENCE

Elizabeth A. Davis (Dr. Rebecca Muich)

Department of Classics



Upper class married women during the Roman Empire were given many privileges that Athenian women did not. The Athenian upper class women were separated and in many ways, isolated from the Athenian men. Roman women did not face such separation and isolation in the early Empire and even were given some recognition in Roman law. Augustus made many laws that rewarded women who bore children, and punished both men and women who did not. Augustus' wife Livia became a role model for upper class women on how to be both a mother and a wife. The view of the role of women as mother and wife in Rome did not come from the Athenian influence, but from the accumulation of several different influences. One of the largest influences on the views of women in Rome comes from the Etruscan culture. An examination of the surviving Etruscan material evidence, most significantly mortuary remains, reveal a culture that placed a high emphasis on the role of women in society. Materials found in Etruscan tombs such as sarcophagi, wall paintings, and grave goods all point to the elevated status of the Etruscan women. The Etruscan influence on the Romans, accounts for the elevated status of Roman women.

THETIS: THE ORIGINAL HELICOPTER MOM

Thomas R. Finke (Dr. Rebecca Muich)

Department of Classics



While there have already been multiple studies about Thetis in Homer's *Iliad*, there has not been much written of her as depicted in Statius' *Achilleid*. Although written nearly nine-hundred years after the *Iliad*, Statius' unfinished epic does not seem to deviate far from the Homeric model of Thetis. This study discusses Statius' portrayal of Thetis, particularly in her role as the mother of Achilles by noting the ways in which Statius imitated and deviated from Homer's characterization. Statius' depiction of Thetis in his *Achilleid* portrays her as being deeply devoted to Achilles, in order to explore the lengths to which she would go to protect her son. Such an analysis shows that the two depictions are similar. The prominent characteristic of Thetis in both the *Achilleid* and the *Iliad* is her solitary ambition of protecting her son. She attempts to protect him through such means as petitioning the gods (Statius 1.73-4; Homer *Il.* 1.508-10) and advising him to avoid battle (Statius 1.212-6; Homer *Il.* 1.421-2). In those few places where Statius' portrayal of Thetis deviates from Homer's, the difference is one of degree. For example, Statius mentions that Thetis dipped Achilles in the Styx (1.133-4), an event not mentioned by Homer. Rather than distancing itself from the *Iliad*, the difference here accentuates the labors which Thetis will endure to protect her son. This study enriches a reading of these two epics by suggesting that mothers several millennia ago were not that different from some mothers today; they cannot help but hover close to their children, attempting to protect them from any possible harm.

THE SONS OF HEROES

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The Epic Cycle is full of stories in which the children of great warriors, such as Orestes, Electra, Neoptolemus, and Telemachus, feel the repercussions of Trojan War because of the extended absence of their fathers. Amidst the chaos caused by the Trojan War, the sons of heroes rise to the level of their fathers by proving themselves worthy of their lineage both in word and deeds, maturing in a disorderly household, and eventually by seeking revenge on behalf of their father. In particular, Telemachus in the *Odyssey* and Neoptolemus in the *Posthomerica* stand out as examples of such children. By comparing the experiences of these two characters in the beginning of their journeys, in their growth into adults, and finally their attempts to avenge their fathers,

similarities can be seen in how they cope with the absence of their fathers and their maturation into ἀριστοί. After both sons have attained the status deserving of their bloodline, they experience a catharsis of the ceaseless sorrow over the loss of their fathers through an encounter with them. These similarities do not only act as evidence of the Odyssey's influence on the Posthomerica, but it also reveals what the relationship between father and son at this time was. The challenges that Neoptolemus and Telemachus faced were societal expectations that aristocratic son needed to fulfil in order to be recognized as men.

THE EXPLORATION OF NATIONALISM IN THE WORKS OF LIVY AND JACQUES-LOUIS DAVID

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Art provides an opportunity for the artist to express feelings, to educate their audience, and to further their own political views. Two such artists who took advantage of the widespread capabilities of the various art forms are Titus Livius and Jacques-Louis David. The artists are similar in that the creation of their works serves as a means of promoting their respective nationalistic ideals. This is evident when looking at Livy's record of the Sabine women and the Horatii in his *Ab Urbe Condita* as compared to the representative works of David, the *Intervention of the Sabine Women* and the *Oath of the Horatii*. David sought to represent the modern conflict and to influence society. He fought for freedom within France and, though he utilized a neoclassicist style, the Roman and Greek figures and settings he portrays in no way diminish his articulation of that love of country. In the *Horatii*, David illustrates his call to the French people to defend the ideals of France no matter the cost. In the *Sabine Women*, David's message evolves to one of peace, focusing on the end of the Revolution, with the ending of a war and the shift to empowered females. In Livy's *Ab Urbe Condita*, similar nationalistic underpinnings occur. The story of the Horatii is blatantly nationalistic with the brothers' disregard for danger, enemy sacrifice in the name of the state, and the execution of the mourning sister, while the Sabine women accept their new state and subsequently desire its preservation. They succeed in not only ending the war, but also in uniting the two states, supporting the state as well as its peaceable relations. Both artists seek to emphasize allegiance to one's country and that everything not affiliated with the state is a secondary concern. Though the two artists worked in very different media and in very different social contexts and times, they managed to successfully convey similar messages of nationalism and patriotism to their audiences with their respective pieces of work.

PLATO THE POET

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Plato's dialogue genre contains within it literary elements not normally associated with a philosophical work. In the creation of his dialogue, Plato combined the literary aspects of drama—specifically setting and characterization—and rhetoric with the Socratic Method to create a genre that was new to philosophy. An examination of the usage of these elements in a Platonic dialogue, specifically *Symposium*, in comparison to Xenophon's *Symposium* reveals the unique nature of Plato's dialogue.

HEROIC UNIFICATION OF THE PUBLIC THROUGH COMMONALITY: SUPERHEROES AND MYTHIC HEROES

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There seems to be little in common between the seminal literary works of the Roman writers and what is often considered the very "low-brow" genre that is modern comic books. However, the heroes of both genres fulfilled a common role in their nation's literary history: that of a unifying force for its nation's people in terms of a coherent national identity. The Roman writers, through the use of mythic heroes such as Aeneas, promoted a unification of the Roman people through use of a common ancestry and a unifying nationalistic goal of divine right. As can be seen in Vergil's *Aeneid*, all Roman citizens have a common destiny for empire and rule. This then supported the program put forward by Augustus, who was attempting to redefine the concept of "romanitas" in order to support his new regime. In a similar way, modern, American superheroes brought several generations together by uniting them under a common banner of defence against evil, as well as

personifying the American Dream. Whether they are defeating the Nazis, standing up for the values in which Americans believe, or simply “fighting the good fight,” superheroes have brought the American people together under a single drive. Few superheroes provide a better example of this than Captain America, a very national hero whose initial series saw the hero growing during the a time of great national crisis and growth. In this way, both the America superhero and the Roman mythic hero helped to unify their respective cultures toward a coherent national identity through common goals.

THE PURPOSE OF LANGUAGE: SIGN LANGUAGE AS EMPOWERMENT

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Language provides humans with a sense of expressive power and allows people to communicate within their speech communities. For centuries sign language has been viewed as unequal and insubordinate to spoken language; and the hearing population saw it as their duty to remove sign language and deafness from society all together. However, sign language is now considered a natural, complete language and offers the deaf the same possibilities as spoken language does for the hearing. Thus, I argue that sign language is as empowering for members of the Deaf community as spoken language is to members of the Hearing community. Language and culture are intrinsically connected to one another; and, therefore, it is only possible to understand the benefits of sign language by looking into the Deaf community. It is through the establishment of the Deaf community that the Deaf are able to express themselves through language and live fulfilling, empowering lives. The Deaf community is a combination of the use of language and the history surrounding the deaf population. Deafness as a disability, or disadvantage, is a social construct. It would be naïve to deny that the Deaf do not lack something because they do, in fact, lack the ability to hear. However, this in no way makes the Deaf any less human or morally inferior. The connection between language and culture leads linguists to try to discover a universal language. A universal language proves to be impossible because a universal culture is impossible. A culture is a way of life and the diverse cultures around the world are what make the world so unique and whole.

THE GALLIPOLI CAMPAIGN: THE BIRTH OF AUSTRALIAN AND NEW ZEALAND CONSCIOUSNESS

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During the Gallipoli Campaign of WWI, the portrayal of the Australian and New Zealand Army Corps. (ANZAC) in popular mediums prompted an intensification of Australian and New Zealand nationalism, shifting their understanding of national identity from colonial possession of the British Empire to an independent culture. The Gallipoli Campaign (April 1915-January 1916) marked the first major battle for the ANZAC forces during The Great War. The ANZAC forces were condemned to the slaughter at the hands of the Turks. Nevertheless, the portrayals of their courageous efforts, actions and attitudes have formed what has become known as the ANZAC Legend. In assessing the depiction of ANZAC soldiers in war correspondence, newspaper articles and war diaries, this paper intends to examine the formation the ANZAC Legend, its legitimacy, and its impact on Australian and New Zealand national identity. While there is a great deal of evidence to suggest that the courageous depictions of the ANZAC forces were fabricated or exaggerated, it neither discounts their willingness to fight nor diminishes its impact on national identity. Thus, these depictions have become a reality. The legend of the ANZAC soldier, whether true or a product of exaggeration, defines the modern mentalities of Australians and New Zealanders in relation to nationalism.

GERMANY MAY NOT REFUSE TO PARTICIPATE: ANALYSIS OF THE TREATY OF VERSAILLES AND ITS CONSEQUENCES ON POST-WAR GERMANY

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Department of History



This paper is an analysis of the ill-fated Treaty of Versailles and its effects on Germany following the Great War. The main focus of research concerns the true motives of the Allied and Victorious Powers when writing the Treaty, incorporating historical evidence (such as the long-standing tension between France and Germany, dating back centuries) to support the

claims. Additionally, special care is made to refute the inevitability of Nazism and World War Two, relying on analysis of the Treaty and related documents to conclude that it was the Treaty itself, not an inherent German characteristic, which led to the atrocities of the 1930s and 1940s. A majority of the paper deals with forced German acceptance of guilt for the war and the complications both at home and abroad. Other consequences of the Treaty are also discussed, but only in relation to the stinging victor's justice which dominates the document. Upon completion of this analysis, conclusions about the Treaty's ramifications are drawn, again utilizing primary sources. All of this leads to the realization that the aftermath of the Great War was entirely avoidable and resulted in another world war, more devastating than the first.

THE GREAT WAR: THE ANGLO-GERMAN NAVAL RACE

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Department of History



The origins of the First World War are debatable and numerous. This historiographical essay examines the origins of the Great War, specifically arguing that the Anglo-German naval race must be considered a cause for the outbreak of war in 1914. This essay analyzes the naval race by examining numerous historians' scholarly work in terms of diplomatic history and diplomatic competition, use of diplomatic spies, and the cultural change produced by the naval race. The competition between the two countries was exemplified through the building of their individual navies, thus creating antagonism between the two countries. The naval race between Great Britain and Germany created tensions between the two countries, which were not solved until after the war, and some historians argue not until after World War II because a powerful navy equated a world power in the first half of the twentieth century.

“WHERE DEATH BECOMES ABSURD AND LIFE ABSURDER”: BRITISH SOLDIERS' EXPERIENCES OF THE GREAT WAR

Caleb A. Ochs (Dr. Rachel Chrastil)

Department of History



In the past, historians have heavily relied on the works of an elite group of war poets to inform their conceptions of the British soldiering experience during the Great War. However, one largely overlooked medium of troop sentiment is that of trench newspapers. The specific comparisons examined here are between the poets Wilfred Owen, Ivor Gurney, and Isaac Rosenberg and *The Wipers Times* trench newspaper. Many experts believe that the war poets have achieved longevity due to their ability to deftly capture the specific yearnings, feelings, desires, and spectrum of emotions that numerous soldiers could relate to. Nevertheless, a trench newspaper was only successful if it could appeal to and represent a wide audience of soldiers. The fact that *The Wipers Times* was able to do both – and for an extended period of time – speaks to its importance in describing a universal troop experience. Through a careful and detailed analysis of these sources, this paper aims to reconcile their differences created as a result of their medium or perspectives in an effort to more solidly establish a description of the British soldier's experiences of the Great War.

SHAME AND SENSE

Samuel Carter (Dr. Gabe Gottlieb)

Department of Philosophy



In this paper I discuss shame and its connection to sense, the self, and public interaction. I take aim at a particularly distasteful account of shame put forth by David Velleman. His account is not only conceptually problematic, but it threatens to eclipse the bones and blood of humanity with the anaesthesia of rationality. Shame is a matter of taste and feeling that is concerned with that part of humanity that presents itself through the humanity of others around us. Throughout the paper I balance my critique of Velleman, which I see as symptomatic of modern liberal individualism, with older pictures of man as found in ancient Greek literature. Our sense of shame is our sense of humanity.

SEEKING A MARSILIAN ANTHROPOLOGY: PHILOSOPHICAL ANTHROPOLOGY IN MARSILIUS OF PADUA'S *DEFENSOR PACIS*

Patrick McBride (Dr. Michael Sweeney)

Department of Philosophy



In his political treatise the *Defensor pacis*, Marsilius of Padua (1275-1342) develops the first secular political theory of the middle ages. This paper seeks to elucidate the philosophical anthropology which accompanies that theory. The task is approached by comparing Marsilius to Thomas Aquinas and Thomas Hobbes. Marsilius and Hobbes are in agreement on the fundamental points of political philosophy. Both argue that the purpose of political life is peace which is achieved by the consolidation and uninterrupted exercise of secular authority, and both present positivist theories of law. In line with Aquinas, however, Marsilius attempts to maintain the core belief of Christian orthodoxy, eternal beatitude. His secular politics and the doctrine of beatitude presuppose two different, incompatible anthropologies, and as a result, the human person in the *Defensor pacis* is split along the temporal-eternal divide between the present life and the eternal life to come.

DEFENDING THE PERSONHOOD AND DIGNITY OF AN ANENCEPHALIC INFANT

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Department of Philosophy



Anencephaly, literally meaning "without a brain" in Greek, is a neural tube defect that prohibits the brain from developing past the brainstem, resulting not only in mutation of the cranium but also in lack of cognition and self-consciousness. It is for this reason that philosophers and ethicists such as Rene Descartes and Peter Singer would deny the personhood of infants inflicted with this defect. However, using the writings of Aristotle and St. Thomas Aquinas, I argue that there are elements of personhood that are deeper than the brain. Furthermore, using the argument of Leon Kass, anencephalic infants, as human beings, have inherent dignity and thereby should be treated the same as a normally developed person.

THE POLICY PRIORITIES OF AFRICAN AMERICAN WOMEN IN THE OHIO STATE LEGISLATURE

Brittany Barnes (Dr. Mack Mariani)

Department of Political Science



African American women in state legislators are marginalized by both their race and gender. It is questionable whether the priority concerns of black women are being overshadowed by those of their counterparts. The majority of the research done on African Americans issue priorities overlooks the difference between men and women. The research on the women's or feminist oriented priority issues is centered on the concerns of only white females. There is a need for diversity on the research done regarding the main concerns of state legislators. The main aim is to establish whether there is a correlation between gender and race in policy priorities. This essay serves to give insight on the priorities of African American women in the Ohio state legislature and whether their concerns match those of the white females, black males or intersections of both.

LEADER TENURE AND US INTERVENTION IN CENTRAL AMERICA

Patrick M. Convey (Dr. Mack Mariani)

Department of Political Science



In recent years the topics of political survival and leader tenure have received renewed focus due to the development of selectorate theory. Many of these recent studies have specifically analysed endogenous processes and foreign policies on the part of the studied leader to explain the tenure of state leaders. This study seeks to go beyond previous ones by analysing how foreign intervention affects the political survival of state leaders. The term intervention is used in a loose sense to indicate any unusual political, economic, or military activity by the intervening state towards the targeted state. Cases selected for analysis are United States intervention in Central American states (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) from 1961-2001. It is hypothesized that increased US intervention, in political, economic, and military forms, will lengthen the tenure of state leaders in Central America.

**THE USE OF PRESIDENTIAL RHETORIC AND ITS RELATIONSHIP
WITH PRESIDENTIAL SUCCESS**

**Megan Green (Dr. Mack Mariani)
Department of Political Science**



Studies of the American presidency have acknowledged that modern presidents rely more heavily on rhetoric than their predecessors. Jeffrey Tulis argues that a new pattern of presidential behavior has emerged in which presidents "go public," using rhetoric to educate, persuade and mobilize the public and put pressure on Congress to support the administration's legislative and policy initiatives. Despite continued efforts on the part of modern presidents to build public support through the use of rhetoric, modern presidents have struggled to maintain their public approval ratings and have been unable to secure high levels of congressional support for their legislative agenda. Given that increases in presidential rhetoric coincide with decreased presidential success, it is important to consider whether there are diminishing returns for presidential rhetoric and whether presidential speeches, statements and addresses have a limited, or even negative, impact on a presidential success in Congress. In consideration of this possibility, I examine the impact of presidential speeches and statements on public opinion of major presidential initiatives between 1976 and 2011.

A SWING AND A MISS: A STUDY IN DISTRIBUTIVE ELECTORAL POLITICS

**Jonathan M. Kelly (Dr. Mack Mariani)
Department of Political Science**



This study focuses on the distributive politics of presidential elections. Specifically, I research whether there is an economic advantage to being a swing state. Current literature on the subject supports the idea that money flows into swing states during presidential election years because of the Electoral College. My findings proved inconclusive; most likely because of limitations in the data available. The study found no correlation between a state's level of competitiveness and its economic performance during an election year. Variables could be included to improve the robustness, particularly a focus on the advantage associated with primary election importance.

NO CHILD LEFT BEHIND AND THE ACHIEVEMENT GAP: THE CASE OF OHIO

**Christopher Pinckney (Dr. Mack Mariani)
Department of Political Science**



In 2002, Congress passed and President Bush signed into law No Child Left Behind Act (NCLB). NCLB aimed to reform the current education system through new accountability initiatives with the intention of closing the existing education gap between urban and suburban schools. In the nearly nine years since the signing of NCLB, growth has occurred in both urban and suburban Annual Yearly Progress (AYP's). Still there exists a growing sentiment growth of student test scores in urban schools are not increasing as quickly as student test scores suburban schools. Based on data retrieved from the Ohio Board of Education, Ohio Department of Education, and Center of Education Policy (CEP), this paper evaluates whether the NCLB has been effective at closing the achievement gap by contrasting test scores of 3th graders in Ohio in urban and suburban school districts.

**THE CHRISTOLOGICAL—PNEUMATOLOGICAL SHIFT IN THE ECCLESIOLOGY OF YVES
CONGAR**

**Samuel Rodgers (Dr. Elizabeth Groppe)
Department of Theology**



This thesis compares the relative role of pneumatology in the ecclesiology of Yves Congar, finding a balance between Christology and pneumatology in his later work which corrects the heavily Christological basis in his earlier work. It begins by briefly giving a history of ecclesiology, focusing especially on the institutional emphasis at the beginning of the twentieth century. It then looks at the relative influence of Christology and pneumatology in Congar's pre-conciliar and post-conciliar thought. There is also some consideration of the reasons behind the shift and the value of an ecclesiology founded in a firm pneumatology.

Philosophy, Politics and the Public
Senior Thesis Presentations
April 16, 2012

<p style="text-align: center;">1:00-2:00pm CLC Rm. 308</p> <p>1. Annie Garnett</p> <p>"Christianity and American Democracy: The Revitalization of Public Spiritedness and the Moral Citizen"</p> <p>2. Kevin Manning</p> <p>"Deconstructing the Relationship between Politics and Religion in the United States"</p> <p>3. Lizzie Glaser</p> <p>"The Pragmatics of Truth: Redefining Journalistic Objectivity"</p>	<p style="text-align: center;">1:00-2:00pm CLC Rm. 309</p> <p>1. Emily Gilbride</p> <p>"Technology: Informing the Masses? Constructing and Deconstructing the Public through Mass Communication"</p> <p>2. John Herrick</p> <p>"'Purging our Terror and Awe': Actuality Film, Agency, and the Pragmatic Spectator in the (Im)mediate Metropolis, 1894-1907"</p> <p>3. Michael Kaple</p> <p>"Reification in Sound Recording: A Critical Application of Walter Benjamin's Aesthetic Theory"</p>
<p style="text-align: center;">2:00-3:00 CLC Rm. 308</p> <p>1. Adam Clark</p> <p>"The Effects of the Neoliberal Model on Social Equality and Democracy in Costa Rica: How They Got There, Where They Are, And Where They Can Go"</p> <p>2. Sean Comer</p> <p style="text-align: center;">TBA</p> <p>3. Jon Deters</p> <p>"The Debate that Divides Us: Capital Punishment in the United States"</p>	<p style="text-align: center;">2:00-3:00 CLC Rm. 309</p> <p>1. Jackie Lormor</p> <p>"#Rebellion: Social Media and Its Effect on Revolutionary Leadership"</p> <p>2. Liza Magley</p> <p>"Super Seniors and Popular Policy: The Evolution of Social Security in the United States of America"</p> <p>3. Maggie Kelly</p> <p>"Doing History in Public: The Challenge of American Museums and the Case of the <i>Enola Gay</i>"</p>