

ILLINOIS COLLEGE
**CELEBRATION
OF EXCELLENCE**

ABSTRACTS

April 19, 2024



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CELEBRATION OF EXCELLENCE 2024

Abstracts

DIVISION I :: ORAL PRESENTATIONS

The Voices of *Forte*, IC's Literary Journal

**Myasia Madkins, Olivia Joy, Rachael Rosentengel, Eddif Fox-Cummings,
Serenity Vasquez, Kate Phillips and Edris Roman**

Faculty Sponsor: Kara Dorris

The editors of and contributors to IC's student-run literary journal, *Forte*, will talk about their work and read their poems and stories. Our creative works are meant to read aloud and shared, not just read on the page.

To Make Generations: The Enduring Legacy of Jazz and Blues in Black Literature

Olivia Joy

Faculty Sponsor: Lisa Udel

Brothels, Carnegie Hall, coffee houses, and the streets of Japan: jazz has endured and pushed the boundaries of artistic expression. This paper analyzes the influence of jazz and blues techniques within a small sample of Black literature: *Corregidora* (Gayle Jones, 1975), *Jazz* (Toni Morrison, 1992), and "Sonny's Blues" (James Baldwin, 1958), exploring how the authors are in conversation with and recreate the musical techniques of call and response, "cutting and chasing," and the blues break. Close reading reveals the themes of generational trauma as well as the importance or role of community and healing. The authors from different decades encourage healing by responding to a community's call.

Gays Through the Decades: Visiting Spirits and Loving Her in Giovanni's Room

Abby Cantrell

Faculty Sponsor: Lisa Udel

This presentation compares the critical reception of three influential LGBTQ+ novels: James Baldwin's *Giovanni's Room* (1956), Ann Allen Shockley's *Loving Her* (1974), and Randall Kenan's *A Visitation of Spirits* (1989). All three works are important for their exploration of Black heterosexual patriarchy, surplus jouissance, intersectionality, and same-gender loving. Baldwin's work was received well, but got some critiques for the characters not being Black; Shockley's work was lambasted by critics for her work being "anti-Black" and "disgusting"; and Kenan's work was incredibly well-received, though the ending was somewhat controversial. Analysis of these three works indicates that gender played a strong role in how each novel was received. Even though all of the authors faced some backlash for either not having Black characters or for speaking out against Black heterosexual patriarchy, none got as much or as fierce of a backlash as Shockley, which supported her book's message about society's "triple strike" against those who are Black, homosexual, and female.

Transcending Religion Through Spiritual Elasticity

Reilly Nelson

Faculty Sponsor: Lisa Udel

Spirituality is an outlet that allows African American women to find their most grounding liberation and nourish their psychological well-being. Nonconformity to Eurocentric heteropatriarchal norms creates spiritual elasticity and demonstrates nonviolent protest against superficial, totalizing expectations of the Eurocentric religion. As a result of dissecting the differences between oppressive Western religion and African American spirituality, and analyzing the narratives of African American women's spiritual empowerment, our experience of African American personhood will be transformed. By studying the texts *Soul Talk: The New Spirituality of African American Women* (Akasha Gloria Hull), *My Soul Is a Witness: African-American Women's Spirituality* (Gloria Jean Wade-Gayles), and Frances E. W. Harper: *A Call to Conscience* (Utz Lars McKnight), readers from multicultural backgrounds learn from African American women's spiritual resiliency—a process that enriches all humans alike.

Biracial Women's Experiences During the Harlem Renaissance Through the Fiction of Nella Larsen & Jessie Redmon Fauset

Edris Roman

Faculty Sponsor: Lisa Udel

In the 21st century, being biracial is not uncommon. Furthermore, it is something that the majority of multiracial people take pride in, because they are representing two or more identities and demonstrating the diversity of our world. Yet, pride does not necessarily overrule conflicting emotions, which is something biracial African Americans often face. These biracial individuals are biologically connected to the "current Black movement," (in reference to Black Lives Matter) but also to the white power systems that activists are searching to change" (Paye). This presentation discusses the emergence of the biracial identity in the 19th century, and how it intersects with the female gender in the literary works *Quicksand* (1928) and *Passing* (1929) by Nella Larsen, and *Plum Bun* by Jessie Redmond Fauset. Larsen and Fauset were the key authors in founding the concept of the biracial woman identity, which is important because it is an identity that represents so many individuals from the 19th century and forward.

The Ring Shout

Ruidong "Victor" Yang

Faculty Sponsor: Lisa Udel

The goal of this project is to use collective memory as a means to demonstrate how African American people united under the Ring Shout, a ritual performed among Black communities in Africa, Haiti, and America. The poster presentation examines how people remember the way it was performed, how that memory passed on through generations, and how it spread through diasporic Black communities. When applying theories of collective memory to the examination of the Ring Shout's importance throughout history, it becomes clear that even with the change of the members' identities, ideologies, and the way it was performed, the ritual of movement still united people together as one.

Shakespeare Monologues and Combat Scenes for 2024

Meryn Davis, Lillian Deter, Jake Petrovich, Mickey Sanders and Victor Yang

Faculty Sponsor: Nancy Taylor Porter

Shakespeare was one of the most popular dramatists of his day 400 years ago. His plays are now continually reimagined for contemporary audiences, and TH 353: Acting II is designed to empower students to take on the bard. They study physical characterizations utilizing Laban movement dynamics, which analyzes movement from the vantage points of space, weight, time, and flow. They also learn about period style movement, vocal expressiveness, and poetic analysis, as well as how these can be adapted for modern-day auditions and productions. The last section of the course teaches stage combat. In this presentation, these acting students perform monologues of the following characters: Lady Macbeth, Joan of Arc, Othello, Richard III, and Edmund (*King Lear*). Combat scenes from *Macbeth* and *King Lear* are also presented. Students explain how the skills they learned in the course have enabled them to present compelling performances of Shakespeare.

The Evolution of Scriptwriting from Page to Stage

Lillian Deter, Olivia Joy, Jake Petrovich with Meryn Davis, MacKenzie Jones, Mickey Saunders and Victor Yang

Faculty Sponsor: Nancy Taylor Porter

A long and winding road proceeds from an author's brain to a fully realized production. After coming up with an initial idea, the writer must adapt it to the chosen performative medium (stage or screen), making both dramatically credible and captivating choices that consider issues of setting, action, character, story, dialogue, and thought / theme. TH/EN 226: Scriptwriting develops these skills in its participants. In order to demonstrate the creative process, students from the course discuss and present selected scenes or excerpts from their one-act stage or screenplay, illuminating how they met various artistic demands from early developmental stages to a final, polished performance.

DIVISION I :: POSTERS

Seeing Yourself in the Academic Library:

A Diversity Audit of Illinois College's Schewe Library's American Fiction

Ava Maria Mendoza

Faculty Sponsor: McKenna Jaquemet

Libraries have an ideological imperative to mirror the diversity of the communities they serve. Through the collaborative work of a student researcher and a librarian, Illinois College's Schewe Library conducted a diversity audit of our collection of American fiction in English (6,780 items) in the spring and summer of 2023. This audit sampled 935 books and measured their authors' races, genders, and ethnicities. The data were then compared to student demographics of Illinois College and the U.S. Census. The largest group represented in this collection sample was cisgender white male authors at 59.6%, followed by cisgender white female authors at 25.9%, leading to discussions for future policy development of equitable accessions and deaccessions. At this poster session, we will discuss with participants our methods for conducting this audit, our findings, future steps, and the necessity for other academic libraries to audit their materials for diversity.

DIVISION II :: ORAL PRESENTATIONS

Screening Orchid Mycorrhizal Fungi for Antimicrobial Activity

Rachael Rosenstengel and Max Balding

Faculty Sponsors: Gwendolyn Knapp, Brent D. Chandler, and Lawrence W. Zettler

In 1928, Alexander Flemming observed the fungus, *Penicillium rubens*, inhibiting the growth of *Staphylococcus aureus* which led to the discovery of the antibiotic penicillin. Nearly 100 years later, antibiotic resistance is now a serious global problem. By 2050, infections from antibiotic-resistant bacteria could kill 10 million people annually. Consequently, the discovery of new antibiotics to combat this global public health threat is the subject of intensive study. To our knowledge, orchid mycorrhizal fungi have yet to be screened for their antibiotic potential. In this study, we tested 10 different kinds of orchid mycorrhizal fungi for their ability to inhibit a Gram-positive actinomycete, *Micrococcus luteus*, via an assay. These fungi, assignable to three genera of basidiomycetes (*Ceratobasidium*, *Serendipita*, *Tulasnella*), were isolated from different species of terrestrial and epiphytic orchid species spanning the Midwest into southern Florida, respectively. The mycorrhizal fungi were then screened for their ability to inhibit the growth of a strain of this bacterium (BSL-1 representatives of the ESKAPE pathogens) known as the leading cause of nosocomial infections. Thus far, 4 of the 10 fungi tested have shown signs of bacterial inhibition in our screen. Research is underway to characterize the chemical compounds that may be involved.

A Comparative Approach to the Analysis of Insectivorous Bat Distress Calls

Jordan Morgan

Faculty Sponsor: Bryan Arnold

Distress calls are vocalizations produced by animals when faced with a potential threat. From a behavioral perspective, reasons for producing these calls vary throughout different taxa. In bats, functions of distress calls may range from eliciting help from a social groupmate, serving as a warning signal to conspecifics, or startling the predator to allow time for the individual to escape. The goal of this study is to utilize the comparative approach to analyze distress calls given by captured adult and juvenile insectivorous bat species in Illinois to examine call structure and variability amongst individuals and different species as a whole. Through a detailed analysis of shared call types among different species and an examination of call structure as a function of characteristics such as body size, age, and sex, we hope to examine how call structure relates to function. To collect recordings, we captured bats using mist nets, and from each individual we documented their age, reproductive status, forearm length, and weight. Our distress call recording methods consisted of one researcher holding the bat within their hand, exposing the bat's mouth to receive a clear recording, and tapping lightly on the bat to agitate it enough to produce a call while the other researcher recorded the bat from a distance of 6 meters using an Avisoft UltraSoundGate microphone. We then analyzed these sounds using the Avisoft SAS Lab Pro Bioacoustics program to measure and characterize calls into unique groups based on their structure. Thus far, we have analyzed calls from 6 species and found that distress calls contain elements that can be grouped into 11 different types of calls, 8 of which are shared among different species. This is an ongoing study, but future goals include playback studies to examine the responses of different species to specific distress call types.

MXene/Graphene-Oxide-Based Microsupercapacitor with Laser-Scribed Fractal Design

Carson Beyers

Faculty Sponsor: Josiah Kunz

Supercapacitors have come to the forefront of major research as a battery alternative. Microsupercapacitors boast flexibility and intricate design at a microscopic level. The fractal design pattern of the graphene-based supercapacitor has been previously studied and found to have increased electrochemical performance. The fractal design pattern has prong-like edges allowing for more interaction between the positive and negative sides of the electrode. In addition, the study of an MXene/Graphene-oxide electrode for a microsupercapacitor with a traditional laser-scribed design has also yielded improved performance. Current work aims to analyze the electrochemical performance of a microsupercapacitor with an MXene/Graphene-oxide-based electrode with the fractal design pattern. In addition, the graphene-oxide synthesis will be performed using upcycled zinc-carbon battery cores. Performance analysis will be conducted using FTIR and cyclic voltammetry.

Determination and Analysis of the White Fringeless Orchid's Nectar Composition

Thomas M. McCluskie

Additional Authors: Tara R. Littlefield of the Department of Forestry and Natural Resources, University of Kentucky and Office of the Kentucky Nature Preserves; and Megan Buland, Department of Forestry and Natural Resources, University of Kentucky

Faculty Sponsor: Brent D. Chandler and Lawrence W. Zettler

Orchids have a close relationship with their pollinators and often rely on winged insects like bees, butterflies, and moths for cross-pollination and production of fruit, in which the nectar is a driving force in the exchange. However, the contents and their ratios within the nectar of specific orchids remain largely unknown. This is a report on the nectar contents and proportions from the White Fringeless Orchid, *Platanthera integrilabia*. Nectar was collected from 3 native populations of *Platanthera integrilabia* in Kentucky, USA, in August 2023 during their peak flowering season. High-performance liquid chromatography (HPLC) and gas chromatography mass spectrometry (GC/MS) analytical methods were used to analyze the nectar samples. The nectar consisted of the sugars sucrose, fructose, and glucose in a 45.1:4.6:1 ratio. Ribitol and gluconic acid were also present along with the amino acids glutamic acid, glycine, and leucine. It is thought orchids with protected nectaries, such as *Platanthera integrilabia* with its long nectar spur, have more curated nectar compositions for one or a few specific pollinators. A comparison with other orchids' nectars could shed light on what different pollinators prefer and how it benefits them.

An Update on Research Involving the Green Sea Turtle (*Chelonia mydas*) and Its Nesting Sites in Western Cuba

Camryn Fryrear, Alyssa Wiseman, Emma South, Alexandra Nunes, Emily Maag, Jordan Morgan, and Devan Morgan

Faculty Sponsors: Lawrence Zettler and Steven M. Gardner

The Green Sea Turtle, *Chelonia mydas* (Reptilia: Cheloniidae), is a large (1.5 m long, 200+ kg.) marine reptile found in warm tropical and subtropical oceans throughout the world. Populations of this species have declined over the decades due to human activities (e.g., hunting, entanglement in fishing nets, habitat loss) and natural causes (e.g., shark predators, diseases), and it remains globally listed as Endangered by the IUCN. In 2022, Illinois College students traveled to a remote beach in Cuba's Guanahacabibes National Park, to work with Cuban researchers who monitor Green Sea Turtle nesting sites annually. During that first trip, the students collected data on turtle nesting during nightfall (10 p.m. to 4 a.m.) that included measuring carapace (shell) lengths, tagging, counting eggs deposited in nests, and recording sea turtle hatchling numbers as they emerged from each nest. In this talk, we will present a summary of the activities carried out in Guanahacabibes National Park during the second trip which took place in August of 2023. We will also provide an update on some of the ecological changes observed between the two trips and how these changes may impact sea turtle conservation in the years ahead.

Examination of the Upper Limb during Mallet Percussion: A Pilot Study

Jewelianna Fuqua

Faculty Sponsor: Prasanna Acharya

Previous studies on battery instrumentation (such as percussion instruments) and drum sets (including a snare set of toms between 1-4) have examined the kinematics and muscular activity of the upper limb. Not many studies have examined the kinematics and muscular activity of the upper limb while playing mallet percussion exercises (such as marimba). This study examined the upper limb's kinematics and muscular activity of the forearm during mallet percussion exercises using a marimba. We hypothesized that there would be a greater difference in the kinematics of the upper limb and muscular activity of the forearm when playing percussion at a different tempo, regardless of experience level in playing percussion. Healthy, experienced, and non-experienced percussionists aged 18 and above were recruited. Nine IMU sensors and six surface EMG electrodes were used to record the upper limb's kinematics and the muscular activity of the forearm while playing percussion. Each participant gripped the four mallets and did 64 randomized trials between no-tap and tap percussion exercise trials. Participants rested the mallets on four keys- F, A, C, and E during no-tap trials while they tapped the same keys at four different tempos (60- 90-120-150 bpm) for the tap trials; kinematics and EMG data were recorded. We have collected data from three participants. The joint angles of the upper limb and the muscle activity of the forearm have shown a greater difference in magnitude when compared between no-tap trials vs tap trials regardless of percussionist experience level. Increased tempo further resulted in a greater difference in the magnitude of the upper limb's joint angle and the forearm's muscular activity, suggesting percussionists will modulate their upper limb coordination as needed. However, these observations are preliminary and will require further data collection.

DIVISION II :: POSTERS

Investigating the Reusability Potential of a Water-Soluble Ruthenium Catalyst for Benzamide Synthesis

Samuel Hannig

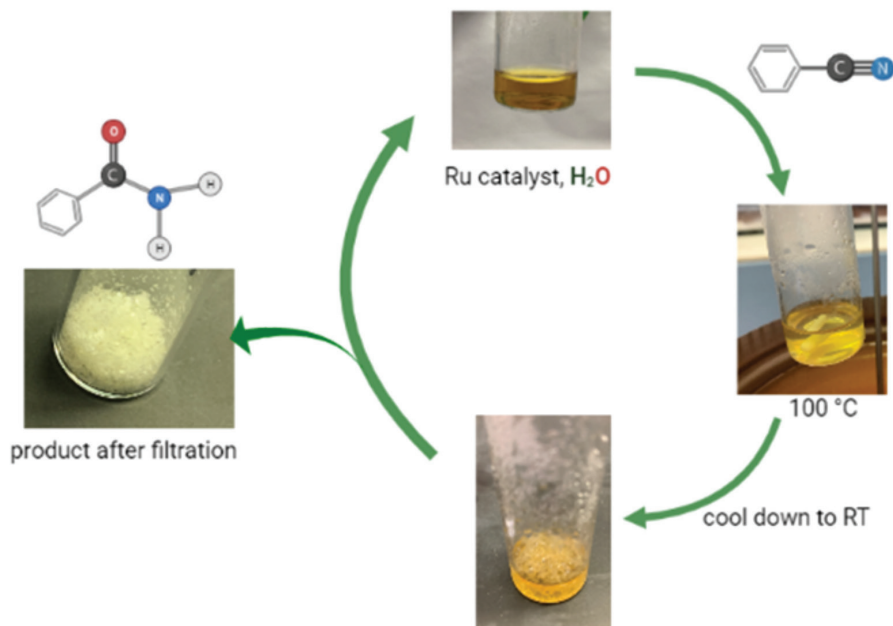
Faculty Sponsor: Jocelyn Lanorio

Benzamides, crucial components in pharmaceuticals and agrochemicals, are traditionally synthesized from benzonitrile, a process marred by slow rates, harsh conditions, and limited selectivity. This research investigates the potential of RuCl₂(PTA)₄, a water-soluble catalyst, in the context of ruthenium-catalyzed benzonitrile hydration. Our primary goal is to establish an efficient and sustainable approach by leveraging ruthenium's reusability to enhance reaction rates, selectivity, and conditions. Successful utilization of RuCl₂(PTA)₄ promises a reduction in environmental impact and opens doors to industrial applications. Additionally, this research marks a step forward in advancing benzamide synthesis and explores broader applications of transition metal catalysis in organic transformations.

To achieve our objectives, we employed a comprehensive methodology, encompassing vial reactions for hydration, recycling experiments, and the use of aqueous biphasic catalyst systems. Characterization techniques included TLC, GC-MS, IR, and NMR analyses.

RuCl₂(PTA)₄ emerges as an excellent catalyst for the controlled hydration of benzonitrile, yielding no observable byproducts. Furthermore, it exhibits remarkable recyclability, maintaining effectiveness over five consecutive runs, with signs of degradation only on the fifth cycle. Importantly, water-soluble ruthenium(II) complexes like RuCl₂(PTA)₄ showcase potential as biphasic aqueous catalysts, simplifying product-catalyst separation through straightforward decantation.

This research advances benzamide synthesis and holds promise for reducing environmental impact while expanding industrial applications. It also lays the foundation for broader exploration in transition metal catalysis in organic transformations.



Journey Towards Goniotalamin: Unveiling Progress and Insights in the Synthesis of an Antitumor Molecule

Samuel Hannig and Nikolas Wollenhaupt

Faculty Sponsor: Jocelyn Lanorio

Goniotalamin, renowned for its diverse therapeutic potential encompassing immunosuppression, anti-inflammation, antifungal, and anticancer effects, faces a challenge due to its limited natural extraction rate. With only 0.0356 gram per gram of dry material obtainable, a shift toward cost-effective gram-scale synthesis and testing is imperative. Traditional methods using Grubbs' catalyst are hindered by air instability, necessitating exploration of air-stable ruthenium catalysts.

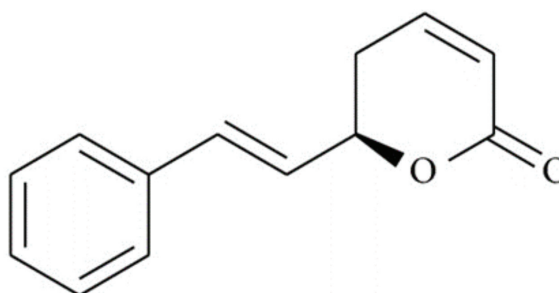
This study pursues two primary objectives: first, the synthetic production of goniotalamin from safe and abundant starting material, *trans*-cinnamaldehyde, and second, the assessment of air-stable ruthenium complexes as alternative catalysts. Results emphasize the necessity of excess allyl magnesium bromide for the complete conversion of *trans*-cinnamaldehyde, yielding 86.6% of high-purity racemic-alcohol. Efficient separation of (*R*)-acetate from (*S*)-alcohol was achieved through column chromatography, validated by R_f values.

A successful enzymatic resolution was confirmed via FTIR spectroscopy with the disappearance of ν_{O-H} at 3340 cm^{-1} and the appearance of $\nu_{C=O}$ at 1737 cm^{-1} . These findings highlight the viability of the synthetic approach used. Future work will investigate alternative ruthenium complexes, promising more cost-effective and efficient gram-scale synthesis. This research advances goniotalamin synthesis, offering opportunities for the development of pharmaceutical agents with exceptional therapeutic potential. In summary, this study addresses the imperative need for scalable and cost-efficient synthesis methods for goniotalamin.



Goniotalamus wightii

(*S*)-Goniathalamin
Natural ant-viral molecules



Sexual Dimorphism and Ontogeny of the Human Frontal Bone and Eye Orbit

Marvin Romo

Faculty Sponsor: Miranda Karban

The purpose of this study was to investigate sexual dimorphism in the shape of the human frontal bone and eye orbit during childhood and early adulthood. Using radiographs from the Iowa Facial Growth Study, measurements were collected from 26 subjects across three longitudinal age groups, ranging from 3.5 to 26.0 years of age. Landmark and semi-landmark measurements were collected from lateral radiographs, and developmental patterns were analyzed using generalized Procrustes analysis, relative warp analysis, and Kruskal-Wallis tests. Some significant sexual dimorphism was found in the frontal bone and orbital shape at each age group, with this dimorphism becoming more pronounced in the oldest age group (age 22.7-26.0 years). Specifically, significant sexual dimorphism was found in the orientation of the frontal squama, the height of the eye orbit, and the projection of the brow ridge. This pattern of sexual dimorphism illustrates craniofacial development during the transition from childhood to adulthood, coinciding with hormonal changes during puberty. This research contributes to a better understanding of craniofacial development and sexual dimorphism, providing insights into the complex interplay between skeletal morphology and sex-specific growth patterns. Future researchers could explore patterns of developmental covariation between the frontal bone and eye orbit, and implications for eye function and vision.

Development of the Human Mandible over Time

Hugo Gil-Diaz

Faculty Sponsor: Miranda Karban

The purpose of this study is to assess the development and sex-related shape variation in the human mandible. Lateral radiographs from 20 subjects were sampled from the Oregon Growth Study at three longitudinal age groups ranging from 10.0 to 19.9 years of age. A total of 2 landmarks (infradentale and gonion) and 28 semi-landmarks were placed along the anterior and inferior borders of the mandible. Generalized Procrustes analysis, relative warp analysis, and Kruskal-Wallis tests were run to assess patterns of shape change and sexual dimorphism over time. The most important developmental pattern was found in the mental protuberance (chin) region, which increased in anterior and inferior projection at each subsequent age group. This skeletal development is likely caused by changes in hormone levels during puberty, which have been shown to influence facial bone shape. No significant sexual dimorphism was found in any age group. It is possible that incorporating additional measurements, including three-dimensional measurements, would allow for the identification of sexual dimorphism in the mandible. This study contributes to the field of dentistry by providing information on developmental changes in the mandible, as well as to the field of forensic anthropology by assessing shape differences between male and female bones.

Sex-Related Difference of Cognitive Functions Among College Soccer Players with/out Concussion History During Season? Pre vs Post

Madison Webb

Additional Authors: Matthew A. Yeomans, Human Performance and Health, University of South Carolina Upstate; and Marc Dalecki, German University of Health and Sports, Berlin, Germany

Faculty Sponsor: Prasanna Acharya

College athletes can show cognitive deficits after concussions earlier in life, and female athletes seem to show longer-lasting symptoms than males. However, whether sex-related differences exist for cognitive functions in NCAA Division III college players across a soccer season is unclear. This study examined whether sex-related differences exist in cognitive functions among Division III soccer players across a soccer season (Pre/Post) with (CH) and without (NoH) concussion history. We hypothesized sex-related differences in cognitive functions between CH and NoH players across seasons.

Thirty athletes (M=19.2 yrs.), including 17 CH players (6 females, 11 males) and 13 NoH players (9 females, 4 males), participated in the study. Two cognitive tests: a Stroop Color word test and a D2 sustained attention test, were performed on a laptop during pre- and post-season.

Repeated ANOVAs were used to analyze response time (RT; milliseconds), error rate (ER; %), and sustained attention score (CS; D2 test only) in males and females with CH and NoH across a season. For the Stroop test, there was a significant Time*CH interaction in the congruent condition ($p < 0.05$), showing a higher ER in CH post-season and a trend for a Sex*Group*Time interaction in the incongruent condition ($p = 0.01$), showing CH females tended to have a higher ER post-season. Our results suggest cognitive deficits with decision-making in a Stroop task in CH soccer players post-season, which may be larger in female athletes when the task requires response inhibition. We plan to analyze further cognitive and mental state data collected from the participants from the SCAT 5 test screenings.

Reverse Engineering a VanDam Feeder

Hannah Lueke

Faculty Sponsor: Josiah Kunz

Berry Global, Inc. is a printing manufacturing plant located in Evansville, IN. The presented project aimed to streamline replacement part production for these feeders and to create animations for training purposes of the maintenance department.

Since the feeder did not have existing blueprints, this project aimed to dismantle, document, and reassemble the machine. CAD software was used to design each part and export the parts to another CAD software, Fusion360.

Creating each part demanded the utmost precision. To this end, a highly-tuned single axis measuring system was employed. After each part was drawn, a simulation encompassing the entire feeder and all of its parts was created. These animations, which will be on display at the poster session, are currently being used for training in the maintenance department since the feeders are very large and heavy.

The simulation created in Fusion360 enabled path creation and speed adjustments, demonstrating the cost-effective in-house manufacturing capability compared to outsourcing.

This streamlined into making a part to the feeder in the mill and getting hands-on experience using a large machine in subtractive manufacturing. A small piece created in the mill will be on display at the poster session as well.

The Association between Physical Fitness and Academic Performance in College-aged Students

Rebecca Hudson

Faculty Sponsor: Alex M. Wolfe

The purpose of this study was to investigate the relationship between physical fitness measurements and the academic performance of college students. Seventy-eight students from two collegiate institutions in Illinois collectively (19.9 ±1.3 years; range: 18-24 years) participated in this study. All participants self-reported their college grade point average. Body mass index (BMI), handgrip strength, and estimated maximal oxygen consumption (VO₂ max) were measured to determine physical fitness. Participants also completed a questionnaire on their sociodemographic profile. Statistically significant correlations were observed between GPA and BMI ($r = -.403$), grip strength ($r = .459$), and VO₂ max ($r = .416$) while controlling for sex, race/ethnicity, and household income. Results of the present study indicate that academic performance and physical fitness in collegiate students are significantly related while controlling for potential confounding variables.

The Use of Automated Recorders to Assess the Effects of Environmental Factors on Foraging Activity of Insectivorous Bats in Siloam Springs State Park

Ava Maria Mendoza

Faculty Sponsor: Bryan Arnold

A feeding buzz is a rapid burst of echolocation pulses produced by a bat to pinpoint the location of its prey. These are easily distinguished from search phase echolocation calls which are more spread out in time as the bat attempts to locate the presence of a potential prey. We used these distinct calls to examine the foraging behavior of insectivorous bats in Siloam Springs State Park as a function of habitat type and prescribed burn activity. We placed Wildlife Acoustics SM4 automated acoustic recorders in six locations in the park in habitats consisting of open and closed woodland corridors in areas that have been subjected to different levels of prescribed burns (burned in the year of recording, burned the previous year, and unburned). Recorders were deployed from May 2023 to August 2023. We analyzed recordings using the Kaleidoscope program and documented the presence of a bat flying within range of the microphone (defined as a bat pass) and the presence or absence of any feeding buzzes associated with the bat pass. The program also identified each bat pass to species based on the characteristic frequency and temporal changes of their echolocation calls, which were manually vetted and checked for accuracy, allowing us to examine species differences in foraging activity. Our findings thus far suggest that foraging activity is higher in open habitats versus woodland flight corridors, which is information that will be useful to the biologists at the park as they manage the habitat for various species, including bats.

The Use of Automated Recorders to Examine Shifting Insectivorous Bat Population Trends in Siloam Springs State Park

Zachary Renken

Faculty Sponsor: Bryan Arnold

Bat populations have faced a decline in recent years due to human-induced factors like wind farm development, habitat destruction, and white-nose syndrome. White-nose syndrome is a fungal disease that most prominently affects cave-hibernating bats. Among those affected, the tricolored bat, northern long-eared bat, and little brown bat are species that have been hit the hardest, with the northern long-eared bat recently listed as a federally endangered species. To better understand the changes in bat species populations in west central Illinois, we analyzed acoustic data collected using automated recorders from the summers of 2017 to 2023 in Siloam Springs State Park. This is part of a long-term study investigating the effects of prescribed burns and habitat type (open areas vs. woodland flight corridors) on bat activity at the park with recorders placed in areas that are historically unburned, burned the year of recording, and burned the previous year. The recorders gathered data daily from 30 minutes before sunset until 30 minutes after sunrise. The files were then uploaded to Kaleidoscope Pro's Bat Auto-ID software and processed. We then analyzed the data and determined if there was a bat presence in each file to distinguish noise files from bat passes and manually check the identifications made by the program. Upon doing so, we observed any changes in bat populations from 2017 to 2023 in the park in terms of species distribution changes as well as activity changes as a function of prescribed burning activity and habitat type. The information gathered will be used to help manage and conserve bat habitats in the park.

Characterization of YidZ, a putative LysR-Type Transcriptional Regulator

Isabelle G. Norris

Faculty Sponsor: Gwendolyn S. Knapp

E. coli strain K-12 MG1655 is the most understood bacterial genome to date. However, in approximately 30% of the genome, the gene is functionally annotated but the gene product has not been characterized. Understanding the role of these genes and the produced gene products could help understand the myriad of biological functions bacteria must undergo to adapt to new environments. The LysR-Type Transcriptional Regulators (LTTRs) comprise a large family of transcription factors (TFs) with over 50 members. However, in *E. coli*, there are 19 LTTRs whose function is still unknown. In this study, we aimed to characterize one of these LTTRs, YidZ. To characterize the gene, the wild-type BW25113 and Δ yidZ bacteria strains were grown in various minimal mediums to test the role of YidZ in sugar catabolism. Optical densities were analyzed using the Tecan Infinite F200 Pro Machine. yidZ was cloned under an inducible promoter for protein expression. Induction with different concentrations of IPTG was performed to determine the optimal IPTG concentration and analyzed with SDS-PAGE. Currently, the protein is undergoing protein purification for isolation and future biochemical experiments.

Film Genres and Risk Propensity: Analyzing Correlations in College Students

Sierra Brewer

Faculty Sponsor: Elizabeth Rellinger Zettler

Previous researchers have explored the link between media consumption and behavioral inclinations, suggesting that media preferences may reflect underlying personality traits, such as risk-taking behaviors. We examined the hypothesis that college students' preferences for certain film genres—such as high-intensity action or thrillers—may serve as indicators of higher propensity for risk-taking activities. Conversely, a preference for low-intensity film genres, such as dramas or documentaries, is hypothesized to correlate with a lower propensity for risk-taking.

Data originates from a broader investigation into college student risk behaviors involving 120 students (comprised of 76% females, 23% males, and 1% nonbinary individuals) who filled out an in-depth questionnaire. This survey incorporated scales such as the Domain-Specific Risk-Taking (DOSPERT) Scale for Adult Populations (Blais & Weber, 2006), the Risk Involvement and Perception Scale (Siegel et al., 1994), and the Brief Sensation Seeking Scale (BSSS-8; Stephenson et al., 2003). Additionally, it included a ranking task where participants were asked to order their top 5 genres out of the 14 provided.

A series of independent t-tests were run for each genre. Partial support was found for the hypothesis: adventure, sports, action, and western fans all reported higher levels of risk-taking on at least one of the measures. However, horror and thriller fans were not significantly higher than non-fans on any risk measures. Gender and risk-taking were also analyzed; males reported more risk-taking than females on the financial and recreational scales. They also reported statistically higher perceived rewards for engaging in risky behaviors.

Applying the Risk Propensity Model of Nursing to College Student Risk Taking

Abigail Glaser

Faculty Sponsor: Elizabeth Rellinger Zettler

There are many factors that put some college students at risk for emergency room visits. For example, authoritarian parenting is linked to increased rates of depression in their children, which can lead to alcohol misuse which, in turn, is correlated with increased medical problems. In addition, peer-to-peer relationships in college students can increase the amount of alcohol consumed, resulting in a similar cycle that can lead to emergency room visits. Based on a review of literature, exploratory analyses based on the Risk Propensity Model of Nursing were conducted to explore factors that might put college students at risk for medical emergencies. Additionally, the hypothesis that authoritarian parenting is associated with alcohol misuse in college students was tested.

Data comes from a larger study of college student risk-taking in which 120 students (76% female, 23% male, and 1% nonbinary) completed an extended survey. Scales included the Domain Specific Risk-Taking Scale for Adult Populations (DOSPERT; Blais & Weber, 2006), the Risk Involvement and Perception Scale (Siegel et al., 1994), the Brief Sensation Seeking Scale (BSSS-8; Stephenson et al., 2003), the Authoritarian Scale from The Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 1995), and the Parent and Peer Influence Scale (Werner-Wilson & Arbel, 2000).

In partial support of the hypothesis, students who reported that their mothers were authoritarian were more likely to believe that they would not get addicted and reported being more influenced by their peers than their parents regarding their use of alcohol. Other risk factors for hospital visits will be discussed in terms of implications for nursing.

Authoritarian Parenting and Risk Propensity in College Students

Melissa Rufus

Faculty Sponsor: Elizabeth Rellinger Zettler

Mallett et al. (2011) found that college students with authoritarian parents were more likely to participate in risky drinking behavior. Others, like Severson and colleagues (1993), report that situational and peer influences contribute to adolescent risk-taking behaviors. Two hypotheses regarding parenting and peer influences on risk-taking were tested in this study: 1) Authoritarian parenting will be correlated with lower levels of parental influence (relative to peer influence) during the college years; 2) Authoritarian parenting will be correlated with higher levels of risk-taking during college. These hypotheses were tested as part of a study of college student risk-taking in which 120 students (76% female, 23% male, and 1% nonbinary) completed an extended survey. Scales included the Domain Specific Risk-Taking Scale for Adult Populations (DOSPERT; Blais & Weber, 2006), the Risk Involvement and Perception Scale (Siegel et al., 1994), the Brief Sensation Seeking Scale (Stephenson et al., 2003), the Authoritarian Scale from the Parenting Styles and Dimensions Questionnaire (Robinson et al., 1995), and the Parent and Peer Influence Scale (Werner-Wilson & Arbel, 2000). In support of the first hypothesis, ratings of maternal authoritarianism and parental influence were negatively correlated. Similarly, ratings of paternal authoritarianism and parental influence were negatively correlated. In partial support of the second hypothesis, social risk-taking was positively correlated with both paternal and maternal authoritarianism. Other measures of parental authoritarianism and risk-taking were not significant, but there was a relationship between paternal authoritarianism and perception of risky behaviors being rewarding.

Antimicrobial Assessment of Central Illinois Soil Bacterial Isolates Against ESKAPE Bacterial Strains

Logan M. Schweigert

Faculty Sponsor: Gwendowlyn Knapp

Antibiotic resistance poses an increasingly significant threat to global health. According to the CDC, in 2021, antibiotic-resistant infections are annually responsible for over 2.8 million infections and more than 35,000 excess deaths in the United States. The most commonly responsible bacteria for these antibiotic-resistant infections are termed ESKAPE strains, which include 6 pathogenic bacteria strains: *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Enterobacter* spp.; who are characterized by their multi-drug-resistant mechanisms. New antibiotics are needed to combat these growing infections. The aim of this study is to identify potential sources of new antibiotics by isolating bacterial strains from environmental samples and testing for their ability to inhibit the growth of ESKAPE strains. Several bacterial strains exhibiting antimicrobial properties against ESKAPE strains were isolated from the environmental samples collected around Central Illinois. These bacteria then underwent various identification techniques including many microbiological identification techniques and 16s rRNA sequencing. The findings from this study offer insight into the diversity and antimicrobial activity of Central Illinois soil bacteria.

Searching for antimicrobials from the soil to fight antibiotic resistance

Michelle R. Maag

Faculty Sponsor: Gwendowlyn Knapp

Multi-drug resistance is a silent growing problem for the world. Due to the misuse and overuse of antibiotics, the world now faces a future where antibiotic treatment against bacterial infections does not work. One way to combat this problem is to identify new treatments. The soil is a diverse ecological niche with organisms that must compete with one another for nutrients and often develop compounds that inhibit other microorganisms, providing researchers with an array of organisms to test for new antimicrobial properties. To tackle this objective, soil samples were collected, diluted, and isolated. Five hundred colonies were tested against various bacterial strains for their ability to inhibit microbial growth. Different inhibition patterns were observed when the metabolic states of the bacterial strains were manipulated. The strains were identified via 16s rRNA sequencing.

DIVISION III :: ORAL PRESENTATIONS

History & Community: The Work in Progress of The Pullman National Historic Park

Shawn Oderio

Faculty Sponsor: Robert Kunath

The Pullman Palace Car Company of Chicago was established in Chicago at a time of great economic expansion. Located about twelve miles south of Downtown Chicago the company mainly manufactured top-of-the-line rail sleeper cars. The product ultimately made travel more comfortable and luxurious. As demand grew for its product, a company town was established to allow workers to live and produce in the same space. The town included high-end amenities such as plumbing, electricity, and gas heating along with recreational amenities such as theaters, saloons, and sports facilities. At the time many saw this as revolutionary both for the worker and company. This dynamic ultimately came into question when the U.S. experienced the Panic of 1893, which resulted in the company lowering wages while maintaining high rents in the company town. This change in labor law, or lack thereof caused the strike.

The strike led to about 200,000 walkouts nationwide, yet ultimately failed. The legacy of the PPCC is now a memorial site, established by the National Parks Service in 2022. The site was established to preserve what is left of the PPCC to allow for further interpretation of the company's legacy. Through primary sources and other scholarly articles, questions arise about whose history is effectively portrayed. Narratives favoring the corporate version of history appeal to most visitors, yet the narratives of the community of Pullman are underrepresented even though they establish a significant part of the current interpretation. Ultimately I sought to re-evaluate how the site commemorates its history, and raise up different voices, most notable in my research the labor unions.

What Happened to the Theravada Buddhist Nuns:

The Attempted Revival of the Saṅgha in the 1990's and the Role of Gender in Buddhism

Elise Griffin

Faculty Sponsor: Robert Kunath

For centuries, the Theravada branch of Buddhism has not had fully ordained *bhikkhuni* (nuns) as a part of the Theravada Saṅgha (community). Many attempts had been made throughout time to revive the bhikkhuni order, with the attempt during the 1990's being the most successful. Since its beginning, Buddhism has favored men, making them leaders, and making women submit to the male leaders within Buddhism. Women have had to fight to even get a place within the Buddhist Saṅgha since the formation of Buddhism. Gender not only plays a role in the religion as a whole, but a role in every branch of Buddhism that exists, especially Theravada as this branch is seen to be the closest to what the Buddha taught when he was alive. Bhikkhuni deserve to be fully ordained and fully recognized as a part of the Theravada Saṅgha. Through this presentation, people will learn about the issues within Theravada Buddhism and politics within the last few centuries. Listeners will also gain knowledge of a big revival of a religion that happened even more recently than the Vietnam War. These issues are prevalent and still ongoing.

The Necessity of Advocacy as a Curriculum

Luis Avila-Alvarez

Faculty Sponsor: Jaime Klein

The current education system has a long history of oppression towards minority groups, leaving many without the skills needed to combat systemic issues. To address this, advocating for a curriculum tailored towards advocacy is crucial for education. This curriculum would promote social justice by empowering students to challenge oppressive systems. Education is supposed to provide students with the necessary skills that prepare them for the world outside of the classroom. When it comes to the systemic problem of our education system, historically schools have attempted to be more inclusive when it comes to course materials, but students aren't taught about how they should feel or act on injustices. My research focuses on the historical problems that stem from the colonized education system that hinders the ability for students to be taught skills that would promote the idea of self-advocacy. Instead, school curriculum is designed to develop students into what society needs them to be. This project underlines the urgent need to decolonize education. It argues that the implementation of this curriculum would empower individuals to understand and effectively communicate about important issues, such as social justice and environmental sustainability. More importantly, it would drive social change by raising awareness, influencing policies, and mobilizing communities to address various inequalities and discrimination, areas where the current system falls short.

Economics and Popular Culture

Imasuen Odosamamwen, Mira Shaholli

Faculty Sponsor: Marilyn Markel

Sometimes, when we hear the word economics, we immediately think of money, investment, and inflation. However, outside these terms, there exist four basic principles of Economics: Marginal Analysis, Cost-benefit Analysis, Opportunity Cost, and Interdependence that guide the actions that we take and the decisions that we make. These principles also guide the choices that characters make and end up driving the plot of our favorite movies!

This research finds the roles that economics plays in movies. Due to the scarcity of resources (like time, money, and goods), characters must make decisions, just as we in the real world must make decisions. Our work is to engage with various forms of media, such as movies, music, and podcasts, and discover that Economics is everywhere around us in subtle and not-so-subtle ways.

From movies like the musical Mamma Mia that do not necessarily *scream* Economics to podcasts like “Think like an Economist” whose title alone gives a hint to the economics that is to come, this research project extracts the economics from familiar media such as these and uses them as a tool to facilitate the teaching of Economics in the classroom, hence the name of the research project — Economics and Popular Culture!

Media Portrayals of Crime

Olivia Treffinger

Faculty Sponsor: Angla Gonzales Balfe

With media becoming increasingly important nowadays, crimes are portrayed in many ways. With social media and crime shows at an all-time high at the moment, research on how media portrays crime and how said portrayal can change people’s perception of the criminal justice system is necessary. The media is full of the most shocking and cruel criminal law cases, even though they only make up a minority of all crimes. For crime stories, rarely anyone with actual expertise is quoted, but mostly the victims and their families. These stories aim to make people feel a certain way, like expressing fear or anger. People are portrayed as either good or bad, but their personalities are barely ever shown. The media doesn’t care about the depth of one’s personality, but they describe a criminal as a purely bad person without consideration of their situation. This research shows how the media portrays crimes and the problems and consequences that come with said portrayal.

Additionally, this research explains an effect called the CSI Effect, which is an interesting outcome of these portrayals. An example of how the media has depicted a case from the past – the case of Aileen Wuornos – will follow. The conclusion is an outlook and suggestions for moving away from certain media depictions in the future.

Student Engagement in Higher Education – A Look at Introductory Biology Courses at Illinois College

Ally Wiseman

Faculty Sponsor: Meredith Kunz

Student engagement in higher education has been a focus of research due to its effects in student retention and achievement. Engagement is a multifaceted concept that has many variables in a classroom setting. It has been explored in many studies however, the consensus is unclear. The purpose of this study was to investigate student engagement in undergraduate introductory biology courses. A numerical instrument was developed to measure student engagement in lecture and lab settings. The instrument included monitoring students’ note-taking, on-task behavior, and interaction with the professor. Students were observed in each setting and their average scores were tabulated based on lecture and lab topics, use of technology, and formative assessments. To avoid the Hawthorne effect, all students who consented to participate were unaware if they were selected to be observed. Preliminary results show that lecture topic, technology policy, and format of instructional time are indicative of student engagement. These results were also compared to how the professors perceived student engagement in their courses.

College Student Identity and Educational Attainment in the United States

Abigail Buchanan-Kenzinger

Faculty Sponsor: Marilyn Markel

My research explores the dynamic nature of modern language surrounding sexual orientation and gender identity (SOGI) from nationally representative surveys in the United States. The foundation of the project began with a literature review of historical progressions on the language used for SOGI questions on these surveys, including the U.S. Census and longitudinal health surveys. From this work, we will later use the applications for survey methodology to produce a survey of college students' educational attainment and career aspirations. The product will also encapsulate modern identity language and terminology to better represent students, but more broadly population, demographics. The aim is to address long standing shortcomings in economic literature and survey design on SOGI identity as it applies to outcomes in education and earnings. This includes exploring findings that certain sexual minorities have higher degrees of educational attainment. Accurately understanding these findings is only possible with a mode of data collection representative of how agents identify themselves. Any shortcomings in categorizations of identity due to political fallacies currently result in misrepresentations that make it difficult to realistically model economic behavior and trends. Discrepancies across labor outcomes by either gender or sexual identity are also relevant. Exploration of these themes amongst student identities is a novel approach that will greatly aid in addressing gaps in the literature. With the implementation of this survey, information can be acquired on ways university students describe their sexual orientation and gender identity; consequently, expanding informative guidelines for inclusive survey design.

Andrew Jackson: Choke with Rage

Kellen Peterson

Faculty Sponsor: Robert Kunath

Andrew Jackson, America's seventh president, is an American icon. He is the founder of the Democratic party and hero of the battle of New Orleans. He also is famous for his less than favorable Seminole campaign and the Indian Removal Act. Regardless, the man is on the \$20 bill and needs to be understood better. Currently, there's an overwhelming amount of speculation on masculinity in America. Toxic masculinity, ideal masculinity, male violence, and male loneliness are just some of the topics being discussed in the cultural zeitgeist of 2023. Jackson fits in many historic and modern interpretations on masculinity, toxic or otherwise. This project explores the application of some of these themes with Andrew Jackson and answers questions about what an American man was in the early republic of this country and what an American man is today. This project includes insight on Jackson's three duels with Waightstill Avery, Charles Dickinson, and John Sevier as well as several other duels in this time period. Duels were the highest form of expression of masculinity, especially when that masculinity is being threatened.

It's no secret that a vast majority of contemporary mass shooters are male, most violent gang members are young men, and that most violence in society seems to be propelled by men. I hope this project will answer questions about male violence in today's society and that the echoes of our past can assist us with understanding ourselves in today's world just a little bit better, warts and all.

Abraham Lincoln: Celebrated Hero, Complicated Human

Brayden Weaver

Faculty Sponsor: Robert Kunath

Abraham Lincoln is, perhaps, the most celebrated president in American history. His name brings an aura beyond any in the country's history. Historians have long debated the true intentions and moral basis behind Lincoln's crowning achievement: The Emancipation Proclamation. Lincoln's true moral stance toward slavery and abolition has long been debated by historians such as Henry Gates, Eric Foner, and David Donald. Some viewpoints of Lincoln's morality have been skewed to the point of missing the moral height of Lincoln's views. Gates, Donald, and Foner all argue points that suggest Lincoln's views on slavery and African Americans greatly shifted throughout his life and political career. When looking at the words of Lincoln himself and through analysis of his dialect choices, it can be concluded that not only did his views not shift in as significant ways as commonly believed, but in reality he always had the moral capacity to end slavery. While economic and wartime motivations were undoubtedly at play, it was his moral indignations against slavery that ultimately was his reason for signing the Proclamation. A deep dive into Lincoln's words throughout his time in politics, both prior to and during his presidency, showcases the strong moral stance that Lincoln had throughout his political life that suggested he was always a man with a much more positive view of slaves and free African Americans than many scholars claim.

DIVISION III :: POSTERS

The Institutionalization Of Disabilities- Why Willowbrook Made A Difference

Mackenzie Strong

Faculty Advisor: Robert Kunath

Before the Americans with Disabilities Act was passed on July 29th 1990, Americans with disabilities were limited in the right to be included in most everyday tasks that able bodied individuals were expected to partake in. Before this act, those with disabilities were rarely allowed to work, access public places, or even be included in public schools. Instead, institutionalization was how these individuals received education starting in the 1940's. These institutions were supposed to offer individuals with disabilities a safe place to have their needs met without the judgment of the outside world. When looking at cases of institutions, specifically Willowbrook, it isn't hard to argue that institutionalizing individuals with disabilities might not be the solution. The Willowbrook State institution in Staten Island first opened in October 1947, with only 20 students, who were transferred from other various mental institutions. The original goal was to give these patients a rare one on one opportunity to gain skills, but because of the success of these 20 students, admission for the school greatly increased to reach the institution's capacity of 4,000 students by 1955. Willowbrook's highest population was in 1969, with 6,200 residents living in buildings that were meant to house 4,000. This institution became understaffed, overcrowded and underfunded. Unfortunately this institution was referred to as a "human warehouse," by physicians at Willowbrook, because of how overcrowded the institution became. This case set important precedents for the humane and ethical treatment of people with developmental disabilities living in institutions. The findings of the Willowbrook case, is one of the biggest reasons behind the inclusion of those with developmental disabilities, and the establishment of the rights for children with disabilities to receive a public education.

Game Theory Optimality in Simple Games

Dane Huber

Faculty Sponsor: Marilyn Markel

In this study, I investigate economic agents' choices in simple games. With these choices, I compared them to perfect game theory and strategic decision-making, even if these were simple games. We can learn a lot from the choices people make in these simple games like if people strictly stick to math or try to employ specific variable strategies. During a one-day experiment, 28 participants played Tic-Tac-Toe (TTT), Rock Paper Scissors (RPS), and a simple high-low card game. I am not simply interested in what people's moves are but also in *why* they made them. To assess strategy, participants were asked a series of demographic questions like sex, age, and their confidence in their playing ability for each game. I used these demographics to rank their TTT, RPS, and card game playing ability out of ten, to rank out of ten how competitive they are, and what sex they identify as. The women in this study outperformed the men in several categories, including win percentage for TTT. They did this even after ranking themselves less confident in all three games but still regarded themselves as more competitive than their male counterparts. TTT showed the most precise and defined difference within strategy and win percentage throughout the study, to which, unlike in other games, one participant's success could be directly attributed to their play and strategy. There also seemed to be evidence of a learning curve in all 3 games where participants could pick up on strategies and let past happenings influence their play for the better. This matters because it showed levels of adaptability and countermoves the participants used, which was important to examine and quantify the results.

InclusiveImpact Internship : Cultivating Diversity and Belonging

Jiech Bel

Faculty Sponsor: Brittney Yancy

Diversity, inclusion, and belonging are foundational values of Illinois College, and since 2020, there has been an intentional effort to further redefine these concepts into action through collaboration between students, faculty and staff, and the community. This presentation offers an introduction to the diversity initiatives under the new Impact Internship with the Center for Student Engagement, Inclusion and Belonging (CSEIB). Central to this presentation is an overview of the three objectives of the internship to 1) engage current literature and methodologies in anti-racist principles, intersectionality, diversity, inclusion, and student leadership, 2) provide a multi-tiered personal and professional mentorship experience between the ODIB and African American Studies, and 3) implement DEI strategies from an antiracist model to improve the leadership experience for students of color at Illinois College. This presentation also highlights strategic solutions and best DEI practices to improve the retention of students of color at Illinois College, including organizational and educational programming to support students of color. This presentation centers on the new leadership training retreat and leadership for student leaders of color under the direction of Associate Director of DIB, Kirstyn Worthem and Alessandra Rider. This retreat is based on our research that applies antiracist theories to strengthen the leadership development of students of color at a small, historically white liberal arts college. This presentation demonstrates how the Impact Internship enhances students' leadership and social responsibility philosophies and equips students with tools to improve inclusion and belonging on a peer-to-peer level.

From Beecher to Schewe: The History of the Library

Victoria Joseph and Olivia Joy

Faculty Sponsor: McKena Jacquemet

In the summer of 2023, two students set out to explore the history of Illinois College's library for the upcoming campus bicentennial. Through yearbooks, scrapbooks, and campus publications, Victoria Joseph and Olivia Joy followed the story of how a small room in Beecher turned into the Schewe Library we now know in 2024.



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