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Oral Presentations

Biology Health and Social Problems Part I (KSC Room 307)

9:45AM: Wetted For Profit: A Political Ecological Sulfate Analysis Of The Pleasant Valley Wetland Mitigation Site, Cuyahoga Valley National Park, Ohio, U.S.A.

ALEX PEIMER

Department Of Geography, Kent State University

Wetlands, in a strictly literal sense, means land that is wet. However, prior to the Clean Water Act (CWA) of 1972, the term 'wetland' had not made its way into political and scientific literature (Robertson 2000). Wetlands are inherently relational materiality's that, when abstracted or generalized, lose much of their actual ecological value and role. Thus, we cannot address wetland ecology without addressing the simultaneous and co-constitutive political economy of a wetland. In this paper I argue that the practice of wetland mitigation banking scales wetlands to a global extent in order to facilitate capital-accumulation. As a result particular biogeochemical processes are obscured and rendered intelligible only through a language of financial costs. I show through a sulfate analysis that sulfate-hydrochemistry is highly variable at the landscape scale and its effects are obscured via abstractions that wetland mitigation banking depends upon.

Keywords: Environmental Governance, Political Ecology, Wetlands

10:00AM: Addiction Rhetoric

LEA POVOZHAEV

Department Of English, Kent State University

My study of addiction rhetoric is qualitative and investigates twenty-four conversations between a doctor and patients at two clinics. I study metaphors patients use to describe their illness experience and argue that how one feels about addiction experiences effects what one will choose to do. This is a study on the communication process between a medical doctor (also a psychologist) and his patients, and I apply rhetorical theories of communication to my study. Specifically, conceptual metaphor theory and rhetorical appeals: pathos, logos, and ethos, are of interest for my intents and purposes. Data demonstrates patients use the following metaphors when talking about addiction: NIGHTMARE, RODEO, SICK / WITHDRAWAL, POSSESSION. In common is the feeling of lacking control. What distinguishes these experiences are additionally related feelings such as: guilt, anxiety, depression, anger, happiness / hope. By analysis of metaphorical entailments, I illustrate how language spells out feeling. Furthermore, feeling alludes to intent. I am concerned with what doctors can say and how their response might effect patients unique paths to recovery.

Keywords: Addiction, Rhetoric, Illness-Experience

10:15AM: Clearing Up The He Said/She Said Of Dating Aggression: A Dyadic Understanding Of Psychological Aggression

KATHERINE KLIPFEL, MANFRED VAN DULMEN

Department Of Psychology, Kent State University

More than 90% of individuals report experiencing psychological aggression in their dating relationships. One significant risk factor for psychological aggression is externalizing behavior problems Yet, most of the derived estimates of externalizing behavior problems and psychological aggression rely on self-report measures by one individual, which fail to capture the dual perspectives of romantic relationship processes. To address this issue, it was the purpose of this study of dating couples to utilize dating partners' dyadic, multi-method data to clarify the relationship between externalizing behavior problems (self- and partner-reported) and psychological aggression (self-reported perpetration and victimization and observed perpetration), disentangling the effects between genders and method of report. Results of a series of path analyses indicated that externalizing behavior problems were associated with both one's own and one's partner's psychological aggression perpetration and victimization—though these effects were qualified by gender and method of report. Given that discrepancies were evident among different methods of report, the results of this study underscore the importance of using multiple informants and methods in understanding both psychological aggression and risk factors associated with psychological aggression.

Keywords: Dating Relationships, Aggression, Behavior Problems

10:30AM: Nazis On Euclid Avenue: The Berlin-Cleveland Student Exchange

SCOTT ABRAMS

Department Of History, Kent State University

From May 1937 to June 1938, Cleveland's high schools participated in a unique student exchange program with Hitler's Germany. This program was the only one of it's kind in the nation and would draw the ire of local and national figures. In this presentation, I will illuminate the program itself as well as the local and national reaction when Hitler's loyal students stepped into Cleveland's schools and when America's youth entered the Reich.

Keywords: Cleveland, Nazi, Student Exchange

11:00AM: A Tale Of Two Sexes: How Stochastic Processes Affect Sex-Ratio Variation In A Flowering Plant

HANNAH MADSON

Department Of Biological Science, Kent State University

Gynodioecy, a breeding system in which females and hermaphrodites coexist in a population, is useful for examining patterns of population differentiation in plants because sex ratio often varies across the species' range. This variation may reflect gene flow and/or genetic drift affecting the distribution of sex-determining alleles. Here, we use neutral markers (chloroplast sequences and nuclear microsatellites) to determine whether these stochastic processes can explain why females are common in the southern-central portion of the range of *Lobelia siphilitica*. We found high levels of diversity at both markers: average chloroplast haplotype diversity was 0.248, and 98.6% of populations were polymorphic at all microsatellite loci, with an average of 15.44 alleles per population. Populations were highly differentiated (chloroplast $F_{st} = 0.68$; microsatellite $F_{st} = 0.190$), and evidence for isolation-by-distance was weak, suggesting limited gene flow. Population size, a proxy for drift, did not account for population differentiation, but sex ratio and location in the range did explain a significant portion of variation in the microsatellite data. We conclude that populations experience limited gene flow and genetic drift, and that sex ratios in *L. siphilitica* may reflect selective rather than stochastic processes.

Keywords: Gene Flow, Genetic Drift, Sexual System

11:15AM: Brominated Alkoxythiophenes: An Oxidative Approach To Novel Building Blocks For Materials Applications

JONATHAN TIETZ

Department Of Chemistry, Kent State University

Alkoxythiophenes find numerous applications in modern materials such as organic LEDs, solar cells, and conductive polymers. However, 2-alkoxylation of thiophenes is difficult; traditional methods appropriate to phenyl substrates, such as nucleophilic aromatic substitution, copper-catalyzed Ullman coupling, and palladium coupling, work poorly on thiophene-derived substrates. We wish to report the 2-alkoxylation of halogenated thiophenes by environmentally-benign oxidation of the corresponding readily prepared aryltrifluoroborate salts followed by Mitsunobu-type etherification of the resulting thiophenones. Using this method, a variety of novel mono- and dibrominated alkoxythiophenes can be prepared with substitution patterns that are difficult to access selectively from previous methods. The resulting building blocks can potentially be utilized for the synthesis of a variety of electron-rich novel materials for display or electronic applications.

Keywords: Organic Synthesis, Organic Methodology, Materials Applications

11:30AM: Caregiver Health Related Quality Of Life - Results From A National Sample

JOSHUA KROPKO

College Of Public Health, Kent State University

The population is aging and more people are self-identifying as caregivers. This research describes perceived and self-reported health-related quality of life (HRQoL) among caregivers compared to non-caregivers in a national sample. This was a cross-sectional study using the 2009 Behavioral Risk Factor Surveillance System. Four HRQoL outcomes were examined: General Health (perceived), was collapsed into poor vs. good. Physical, Mental and Activity-Limiting Health (self-reported) were reported as frequency of unhealthy days the previous month and dichotomized into <14 (good) and ≥14 days (poor). Logistic regression models were used accounting for the complex sampling design of the BRFSS. Caregivers were less likely to perceive poor general health (odds ratio (OR)=0.95; 95% confidence interval (CI): 0.93-0.97) and to report poor physical health (OR=0.93; CI: 0.91-0.96) and activity-limiting health (OR=0.85; CI: 0.82-0.87) but were more likely to report poor mental health (OR=1.4; CI: 1.4-1.5) compared to non-caregivers, controlling for predictors in the model. General, physical, and activity-limiting health in caregivers may be positively impacted as a necessity of caregiving. However, caregivers have increased risk for poor mental health. While resources often target caregivers of those with extreme needs, mental health resources may need to be reallocated to caregivers to address this health risk.

Keywords: Aging, Quality Of Life, Public Health

11:45AM: Using Geographic Information Systems In Analysis Of The Relationship Between Alcohol Outlet Density And Related Harms

LAURA SCHUCH

College Of Public Health, Kent State University

A research gap identified by The Task Force on Community Preventive Services recognizes that most research in alcohol consumption behaviors in adults aged 18 and over shows the impact of an increase in alcohol outlet density, but little research explores the impact of a reduction in density on harms, especially with temporal changes. This research explores the spatial and temporal relationships between alcohol outlet density and alcohol related harms in Kent, Ohio from 2008 to 2010 in which a reduction in density occurred due to community development projects using Geographic Information Systems (GIS) -- a means for mapping alcohol outlets and alcohol related crimes to explore spatial relationships using spatial distribution, proximity analysis, hot-spot analysis and geographically weighted regression. Mapped data reveals a defined hot-spot of charge locations, yet the number of charges decreased from 2008 to 2010 as well as the standard distance of charge locations. This research leads to further investigation of the before and after impacts of the closing of several nuisance bars in the town due to community development activity, and can inform community policy makers as they consider awarding new liquor licenses.

Keywords: Alcohol Environment, Geographic Information Systems

12:00PM: Life Satisfaction Amongst Cancer Survivors: Role Of Emotional Support

THERESA ZAVODNIK, VINAY CHERUVU
College Of Public Health, Kent State University

Background Among cancer survivors, little is known about the effect of emotional support on individual's life satisfaction level. The objective of this current study is to understand the role of emotional support in individual's life satisfaction level. Methods Cross-sectional data from the 2009 Behavioral Risk Factor Surveillance System (BRFSS) were used to estimate the prevalence of life dissatisfaction, emotional support, among all cancer survivors. Univariate and multivariable logistic regression was used to model the probability of life dissatisfaction in relation to emotional support adjusting for all potential confounders. Data were analyzed in 2011 and accounted for the complex sampling design of the BRFSS. Results The prevalence of cancer survivors was 9.3%. Among them, based on self-report, 6% were dissatisfied with their lives and 8% received no emotional support. After controlling for all potential confounders, cancer survivors who received no emotional support were at a significantly higher risk for reporting life dissatisfaction (Odds Ratio (OR): 16.0, 95% Confidence Interval (CI): 13.1 – 19.5) compared to cancer survivors who always received emotional support. Conclusions These results provide new insights in understanding the role of emotional support in individual's life satisfaction level, among cancer survivors.

Keywords: Cancer, Life Satisfaction, Emotional Support

12:15PM: Factors And Reasons For Not Initiating The Hpv Vaccine Among Unvaccinated Teens

LAUREN DRINKARD
College Of Public Health, Kent State University

Two vaccines are routinely recommended to reduce the high rate of human papillomavirus infections (HPV). Several studies have examined factors of HPV vaccination uptake and completion. However, understanding the factors and reasons for “no future intent” to initiate the HPV vaccine may better guide future public health programs. Cross-sectional data from the 2010 National Immunization Survey examined factors and reasons for “no future intent” of the HPV vaccine, among unvaccinated females (13 to 17 years; sample size = 4702). Logistic regression was used to (1) examine the odds between “no future intent” of the HPV vaccine, socio-demographics, and health care access factors, and (2) examine the reasons for no intent. The prevalence of “no future intent” is 64.7% (95% Confidence Interval (CI): 62.4 – 67.1). In the multivariable model, teens with no physician recommendation for the vaccine, and mothers with higher education, were more likely to be in the “no future intent” group [(OR: 2.2, 95% CI: 1.7 – 2.7); (OR: 2.0, 95% CI: 1.3 – 3.1)]. Physician recommendation, knowledge, and mothers with higher education, were more likely to report “safety concerns”, and “not sexually active” as reasons for “no future intent” (data not shown).

Keywords: Infectious Disease, Female, Cancer, Health Services

Education & Visual Communication (KSC Room 309)

9:00AM: Learning In Museums: How Does It Happen? A Case Study On The Contextual Model Of Learning.

DONNA TRESSLER
School Of Library & Information Science, Kent State University

How does learning happen in a museum? One of the ways is through the Contextual Model of Learning which involves three overlapping contexts: the personal, the sociocultural and the physical. Do all three of these work together equally or does one factor overwhelm the others? How do they work? Using case study as the mode of inquiry research is conducted in a local museum to help find the answers to these questions.

Keywords: Museum, Model, Learning

9:15AM: Improving Visual Clarity: In Search Of A More Transparent Glass

SCOTT GOSS
School Of Art, Kent State University

For over eight years I have created an innovative Glass Panel Series, which consists of painted landscapes on float glass, combined with vitreous enamel on copper. For reasons of accessibility and affordability, I have been limited to using recycled glasses (eg, windows and shelves), which, while plentiful and easy to find, have a noticeable green tint as a result of their high iron content, and can therefore effect the visual clarity of my pieces. The purpose of my research is to test two different glasses that are more optically clear compared with the high-iron based glasses I have previously used. Starphire, (Pittsburgh Paint and Glass [PPG]), is more optically clear than standard float glass, but still has a noticeable greenish tint on its edges. TEKTA, (Bullseye Glass Company), is an optically clear glass intended for artists seeking a non-colored transparent glass. Preliminary results have shown that both glasses are more optically clear than the high-iron float glass I previously used. However, in using these new glasses, additional challenges related to annealing temperatures and softening points have developed. Next steps include determining the proper annealing schedule for these glasses, and assessing which best fits my needs as an artist.

Keywords: Art, Glass, Optically Clear

9:30AM: Faded Glory: Captain America And The Wilting American Dream

BRITTNI BORRERO

School Of Journalism & Mass Communication, Kent State University

More than 30 live-action superhero movies (based on comic books) have been released since the terrorist attack in New York on September 11, 2001. Captain America, created during WWII to rally support, is among these movies. Comic books have always been able to explain American politics and pop culture in a way that everyone can understand. Since America's enemies are less obvious today than they were 60 years ago, it's important to reflect on why we fight and what we stand for. Symbolic Interaction Theory explains that how people interpret relationships, reality and behaviors. This allows for influence from others, realization of differing perspectives and acceptance of mass communication. It also helps us interpret American Dream propaganda. Captain America is more important now than he ever was during World War II because his messages and values live on in relevance. This presentation will shine some light on why his death and resurrection are so important in defining the American Dream.

Keywords: The American Dream, Popular Culture, Symbolic Interaction

9:45AM: The First Vitruvian Man

ANDREW BLY

School Of Art, Kent State University

Mariano di Jacopo, better known as Il Taccola, was active as an artist/engineer in early 15th century Siena. He is chiefly known for his manuscripts on engineering and machinery. His connections with contemporary Siennese artists such as Francesco di Giorgio as well as the Florentine Brunelleschi would provide impetus for the copying of his drawings throughout the next century. Civic projects in Siena and the ongoing humanistic search for ancient texts seem to have spurred the creation of Taccola's main surviving works, *De Ingeneis* (1433) and *De Machinis* (1449). This research aims to contextualize Taccola's activity in early quattrocento Tuscany, identifying Taccola as the first artist in Italy to attempt an illustration of Vitruvius' *De Architectura*. This presentation will focus on the analysis of his Vitruvian man sketch, which was conceived approximately 60 years before the well-known Leonardo da Vinci masterpiece.

Keywords: Taccola, Pre-Renaissance, Vitruvius

10:00AM: Let's Get Visual: Comparing And Contrasting Visual Culture

HOPE HANEY

School Of Art, Kent State University

The field of Art Education has taken a turn to include more Visual Culture Art Education in its curriculum. To investigate more in how to establish a visual culture art education curriculum where students investigate how artifacts can identify a culture, I traveled to Beijing and Xi'an, China to compare and contrast the visual cultures' of China and the United States. I chose a number of daily/regularly consumed items labeled Made in China of different brand names and functions found in the United States, and formed categories for a material culture report. By examining these artifacts, I was able to compare how they are encountered in contemporary China, and how their meanings are reestablished and reformulated based on the culture in which they are encountered. By conducting this research, I hope to discover how visual culture art education can teach students the multimodalities of cultural literacy, and understand societal themes relating to visual culture artifacts and settings.

Keywords: Visual Culture Art Education Cultural Literacy

10:15AM: Modernization Of Post-Modernity: Non-Representation, Critique, Life And Performing The Now

ALEX COLUCCI

Department Of Geography, Kent State University

This talk will center on the spatialities of now. Specifically of importance to the spatiality of now is the ostensible ubiquity of critique. Seemingly, we are continually inundated, both within the discipline of Geography and society more broadly, with critiques of the now, or 'the modern', through supposed postmodern mediums. Mired within the intersticed maw of the struggle between 'the modern' and that which presents its critiques and alternatives is life. Often taken as banal and normative, life is inevitably abandoned relegated to spaces of representation. Representations of life serve to elucidate the dialectic of being. Taking from non-representational theory and an array of dystopian mediums, I seek to initiate a discussion regarding the practice of being, the performance of life, in the now.

Keywords: Geography, Modernity, Representation

10:30AM: Red Tourism In China

DAN LIAO

School Of Foundations, Leadership, & Administration, Kent State University

Red tourism is a counterpart of communist heritage tourism. It is a tourism activity of learning, sightseeing, and nostalgia in communist heritage sites left by the revolution and construction periods (Hu, 2009, p89). Red tourism is increasingly popular across China. The reasons for promoting red tourism include economic, social-cultural and political (Li & Hu, 2007; Light, 2001; Hu, 2009; Hall, 2002). Considering the importance of red tourism, the researcher would like to explore four questions: a. What images of red tourism do Chinese people have? b. What are their motivations for traveling to red tourism destinations? c. What factors influence their travel decisions? d. What are their travel experiences after visiting red tourism destinations? A convenient sampling procedure will be utilized to gather 100-150 surveys of Chinese citizens currently living in China. Data will be both qualitative and quantitative. The snowball method will be adopted. Based on a review of relevant literature, including studies on tourism and national identity, the research is going to test four hypotheses. Red tourism has not been well researched. It is hoped that findings will advance red tourism and enable its economic, social and political agenda. Implications will be discussed.

Keywords: Red Tourism, China

11:00AM: One Day, Two Day, What Is The Best Way? - Orientation Best Practices

JOEL PARKER, AMY RING

School Of Foundations, Leadership, & Administration, Kent State University

Institutions are switching from a multi-day orientation to a single-day or vice versa and you may be wondering which style is most conducive to academic success, retention, and community building. Find out about a study performed comparing Kent State University's two styles of orientation and how they affect students. Learn best practices and find out directly how these different orientation environments affect students. Is your orientation program the best it can be? Find out!

Keywords: Orientation, First Year Experience, College Transition

11:15AM: Evolution Of Graduate Student Orientation: Meeting The Needs Of A Diverse Population

KYLE REYNOLDS

School Of Foundations, Leadership, & Administration, Kent State University

Graduate student orientation programs provide services for a diverse group of master's and doctoral students with many different needs and expectations for an orientation. Orientation programs also serve as an important retention tool for graduate students by providing them with personal and professional development opportunities, helping them integrate into a university, and providing resources to help them graduate in a timely manner. Learn about Graduate Student Orientation at Kent State University, how the program at Kent has evolved, trends in graduate enrollment, and different models of graduate student orientation programs.

Keywords: Orientation, Retention, Diversity

11:30AM: Professional Development For Graduate Students

KIMBERLY ROY

School Of Foundations, Leadership, & Administration, Kent State University

This spring semester, the Division of Graduate Studies at Kent State University was proud to present their first series of professional development workshops. All the workshops were geared to assist graduate students from all disciplines to build competency in pertinent skills for professional growth. This presentation is designed to provide a behind-the-scenes explanation on the creation of the program. Discussion on the research, foundation, and the planning that shaped the workshop series will be presented; the evaluation results of the first workshop series endeavor will be revealed. Moreover, be the first to know about the division's future plans for the upcoming spring 2013 professional development workshop series.

Keywords: Development, Graduate, Workshops

11:45AM: Consumer Perceptions Of Green Hotels

LISA COMETA

School of Foundations, Leadership, & Administration, Kent State University

Current research on consumers' perceptions of green hotels is lacking (Lee et al., 2010) although benefits including reduced operating costs and increased consumer demand are well documented. The primary objectives of this study are to identify consumer perceptions, willingness to pay, and willingness to participate in green activities while staying at hotels. Study participants were all faculty and staff members from a Midwestern University. Information on consumer perceptions could help hotel managers make pricing decisions and design environmentally sustainable activities that guests could participate in.

Keywords: Consumer Perceptions, Green, Willingness To Participate

12:00PM: Developing Democratic Citizenship Through Service-Learning In The 21st Century

SONYA DEMIRCI

School Of Foundations, Leadership, & Administration, Kent State University

With foundations in John Dewey's concept of experiential learning and the quest for the "Great Community," service-learning can promote democracy through the blending of service and reflective learning. True service-learning creates reciprocal partnerships between campus and community, generating tangible outcomes for society while educating students on becoming engaged citizens through their coursework. Effective partnerships facilitate students viewing community work from a perspective of shared responsibility and common humanity. This session will distinguish service-learning from volunteering, examine the history of service-learning in U.S. higher education, and provide several examples of domestic and international service-learning initiatives. As universities discover the value of experiential learning and applying knowledge to community needs, service-learning will continue to grow as an important model for preparing students to influence our global democracies.

Keywords: Service Learning, Democracy, Experiential Learning

12:15PM: Budget Policy & Performance Outcomes For Texas Public School Districts

WESTLEY BAKER

School Of Foundations, Leadership, & Administration, Kent State University

The problems associated with the 2008 financial crisis continue to pressure Republicans and Democrats to formulate quick answers to solve the public's financial woes. However, in the quest to solve our budget deficit, many decision-makers are neglecting to consider the long-term effects of their solutions. These quick answers to budget problems may result in long-term issues for public programming, administration and service. This study critically examines the effects of short-term budget solutions on performance outcomes for public programming. Specifically, this study will analyze the performance outcomes for public school districts in Texas when manipulated by republican or democratic policy initiatives. By collecting and stratifying performance and financial reports from multiple districts across the state, this study evaluates the effect of quick budget decisions on the quality of education for Texas school children. The findings from this study formulate reasonable conclusions as to how decision makers should develop budget policy for school districts in the state of Texas. This study also criticizes the method by which the state of Texas accumulates performance data.

Keywords: Budgeting Education Politics

Space and Place (KSC Room310A)

9:15AM: Polish Migration To London, UK After Poland's Accession To The EU In 2004

WERONIKA KUSEK

Department Of Geography, Kent State University

One of the most important characteristics of the European Union is the free movement of people, goods, and services within its boundaries. As a result of this policy, Poland's accession to the EU in 2004 prompted one million Poles to migrate to the UK within few years. The majority of Poles chose London as the primary destination, moving there with the hope of finding better economic opportunities for themselves and their families. My dissertation will explore the lives of Poles who immigrated to London and analyze their migration in the context of assimilation. This research presents results from my first, exploratory trip to London in the summer of 2011. I visited neighborhoods recognized for a high population of Poles, spoke with people who help immigrants to adjust to a new social reality, and shopped and dined in Polish grocery stores and restaurants. This research presents basic characteristics of the Polish reality in the UK. I will also rely on this presentation to solicit advice about how to structure my second trip to London and maximize data collection efforts.

Keywords: Polish, Migration

9:30AM: Using Gis Techniques To Model Early Paleoindian Lithic Supply Zones

AMANDA MULLETT

Department Of Geography, Kent State University

Early Paleoindian mobility is a topic that is frequently covered in eastern North American archaeology. It is well accepted that this colonizing population moved long distances across the continent during the end of the Pleistocene. Early Paleoindians relied on the procurement of high quality lithic raw materials in order to construct large bifacial projectile points that were utilized in the hunting of big game. This hunting and gathering subsistence strategy paired with a transitional climate and environment encouraged the groups to be highly mobile. One of the only stable factors contributing to the environment for early Paleoindians was the location of the raw material outcrops, and the reliability of these select outcrops was essential to their survival. To better understand the land-use decisions made by these hunter-gatherers, I will integrate several different functions supported by Geographic Information Systems (GIS). First, I will estimate the mobility surface of early Paleoindians based on the distribution of particular artifacts around raw material outcrops. I will also use other functions to make distinctions on land-use choices with regards to the physical landscape. Each of the tools that I use will help illustrate a broader portrait on prehistoric mobility.

Keywords: GIS, Archaeology, Mobility

9:45AM: "With One Idea: To Make Money:" The Ladies' Home Journal And Women's Employment, 1917-1920

MICHELE CURRAN

Department Of History, Kent State University

The Ladies' Home Journal (LHJ) was one of the most popular women's magazines in America for the first half of the twentieth century. Most scholars agree that the Journal promoted traditional views about the rightful place of middle-class American women in the home. Yet, at the same time the LHJ presented conflicting messages about gender ideology by creating a positive image of women's employment through the publication of women's job advertisements as well as editorials and advice articles about financial awareness. Commonly, the LHJ advertised jobs in which their own consumers could market their magazines, thereby, increasing the number of subscriptions to the magazine and the financial agency of their readers. By promoting workingwomen, the LHJ contradicted their feminine ideal because all readers, including married women, were encouraged to engage in the "dignified" work the LHJ offered. This paper explores the tensions between domesticity and employment in the pages of LHJ from January of 1917 to June of 1920 and argues that the job advertisements published projected images of two kinds of women: the financially independent woman and the woman who worked for the betterment of her family and marriage.

Keywords: Workingwomen, Magazines, Gender

10:00AM: Preserving Culture Through Environmental Awareness: Developing A Watershed Management Plan For Swartzentruber Amish

DAVID WIDNER

Department Of Geography, Kent State University

A particular Amish subculture known locally in NE Ohio as the Swartzentruber are extremely primitive and have little or no exposure to environmental teaching and are unaware that they have been accused by government regulatory agencies of polluting local streams. The Swartzentruber's highest priority is the preservation and perpetuation of their culture. We are now presented with the need of reconciling two high priority Ideals – responsible environmental stewardship and preservation of culture. One potential way to resolve this issue is for the Swartzentruber to recognize environmental stewardship as being consistent with their sustainable approach to life. We are challenged then with determining a method for educating the Swartzentruber, and seeing environmental teaching incorporated into their culture. Environmental sensors have been used locally to measure the ecological and environmental health of streams. The Swartzentruber are resistant to modern inventions, but the pollution problems associated with the farming practices of this group have been substantiated by high tech sensors. The goal of this study is to determine if we can bridge the gap between modern technology and primitive culture through the adaptation of environmental sensors to tools that can be utilized by the Swartzentruber to educate their own people.

Keywords: Environmental Perception, Amish, Watershed

10:15AM: The Great Revisionist Historian: Ernesto Che Guevara's Shaping Of The Legacy Of The Cuban Revolution

DWIGHT MEYER

Department Of History, Kent State University

Che Guevara wrote personal accounts of the Cuban Revolution in which he related the details of the Guerrilla Movement. There is evidence that he carefully managed the image of the Revolution and in several cases edited his narrative in an effort to secure an idealistic legacy of his actions.

Keywords: Cuban Revolution, Che Guevara, Legacy

10:30AM: Imperial Intentions And Independent Interests: The Agents Of The Ohio Company Of Virginia, 1748-1952

EMILY HAGER

Department Of History, Kent State University

This paper investigates two backwoodsmen as they operated in the Borderland that was the Ohio Country in the mid 1700's. Thomas Cresap and Christopher Gist, as employees for the Ohio Company of Virginia, operated in the disputed territory in order to gain land rights for the British Empire. This paper investigates the imperial connection of the Board of Trade to the Ohio Company of Virginia. Because they were working in a hostile political environment, the Ohio Company of Virginia was forced to get their coveted land grant from the Board of Trade. Due to the competition from land speculation companies for land in the Ohio, The Ohio Company accentuated the imperialistic nature of their enterprise in their petition. The Board of Trade altered their original document, and increased the imperial activities of the company. They erected trading posts, attempted settlements and erected forts. Most importantly, these two men negotiated with Indians via trading and conferences. Because of their connections to the Crown and their work in the disputed territory in the name of the British Empire, Thomas Cresap and Christopher Gist became agents of empire.

Keywords: Empire, Ohio Valley, Borderlands

11:00AM: Thunderstorm Hazard Vulnerability For The Atlanta, Georgia Metropolitan Region

MARIUS PAULIKAS

Department Of Geography, Kent State University

Most u.s. Metropolitan regions have experienced urban "sprawl," or the outward spreading of urban development from city centers. For cities lying in areas prone to severe weather, the sprawl phenomenon exposes greater numbers of developed areas and inhabitants to a variety of thunderstorm hazards. This study's principal goal is to determine how urbanization growth patterns affect a region's vulnerability to severe weather events. To assess how sprawl may impact vulnerability to tornadoes, hail, and convective wind events, an analysis examining potential loss may be utilized. This study employs two distinct approaches to examine how the Atlanta area's rapid and extensive development during the latter half of the twentieth Century has affected its overall potential exposure to thunderstorm hazards. First, archived census data are used to estimate overall impacts from hypothetical significant tornado, nontornadic convective wind, and hail events occurring at different time periods throughout several locations in the Atlanta metropolitan region. Second, economic factors are integrated into the analysis, which assists in determining how these hypothetical severe event scenarios may have changed from a cost standpoint if they were to occur in 2006 as opposed to 1960.

Keywords: Severe Convective Storms

11:15AM: The Current Status Of Lightning Safety Knowledge And The Effects Of Lightning Education Modes On College Students

MELISSA PHILLIPS

Department Of Geography, Kent State University

Lightning is a natural hazard occurring frequently within the United States causing injury, damage, and death. No studies have explored the status of lightning safety knowledge or tested modes of educating for level of efficacy. This study distributed surveys, education modes, and follow up surveys to college students in three states with variable risk: Florida, Ohio, and Colorado. This study provides a current status of lightning safety knowledge, most misunderstood areas of lightning safety, analyzes the relationship between variable risk and presence of lightning safety education programs, and explores several lightning education modes as well as the role of gender.

Keywords: Lightning, Education, Hazards

11:30AM: The Impacts Of Short-Term Weather Variability On Chlorophyll Levels Near The Florida Gulf Coast

CAMERON LEE

Department Of Geography, Kent State University

Previous studies have shown that marine ecosystems respond in-kind to short-term weather variability. In order to investigate this response along the Florida Gulf coast, this research utilizes synoptic climatological methods to classify typical sea-level pressure patterns that are related to changing chlorophyll levels in the region. Initial results show that while some patterns show little influence on chlorophyll levels, a pattern representing a remnant tropical depression in the Gulf of Mexico, and patterns characterizing a low pressure to the north and/or east of the region are related to the highest chlorophyll levels in most areas. Persistence of these patterns, along with sequences of patterns will be the focus of future research, as will exploring the impacts of these patterns on additional water quality variables.

Keywords: Synoptic Climatology, Sea-Level Pressure Patterns, Chlorophyll Levels

11:45AM: The Diversity Scorecard And Kent State University –Achieving Inclusive Excellence!

PATRICK JACKSON¹, GINA CAMPANA², ELSA BARLETTA³

¹ Higher Education Administration, ² School Of Foundations, Leadership, & Administration, ³ Department Of Economics, Kent State University

In an effort to achieve inclusive excellence, the Division of Diversity, Equity, and Inclusion (DEI) at KSU has adopted the Diversity Scorecard approach. The premise of the scorecard approach is twofold: (a) allow institutional administration, faculty, and staff an opportunity to become knowledgeable about the outcomes of underrepresented students on campus; and (b) view, understand, and approach inequality of student outcomes as a matter of institutional responsibility (Harris & Bensimon, 2007). The Diversity Scorecard approach recognizes that administrators in higher education pay attention to what is measured, yet few institutions measure the educational outcomes for traditionally underrepresented student populations. This presentation will 1) define the Diversity Scorecard approach; 2) discuss relevant extant literature related to diversity assessment; and 3) discuss some of the initial steps related to the scorecard implementation at Kent State University, system-wide. Please join two current graduate students and a recent graduate who will share their knowledge of how the Diversity Scorecard is being implemented at KSU.

Keywords: Diversity Scorecard Approach, Inclusive Excellence

12:00PM: An Addendum To Köppen's E Climates

THOMAS BALLINGER¹, DANIEL STEINHOFF², THOMAS SCHMIDLIN¹

¹Department Of Geography, Kent State University, ² National Center For Atmospheric Research, Boulder, Colorado

As an additional classification to Köppen's Climate Classification for polar (E) climates, the Polar Marine (EM) climate was presented nearly five decades ago by Shear (1964) and is revisited in this paper. The EM climate was traced to the North Atlantic, North Pacific and Southern Polar Ocean and recognized as fairly wet, cloudy and windy, especially during winter. These areas were mapped according to coldest monthly mean temperatures greater than or equal to -6.7°C (20°F) and warmest monthly mean temperatures not exceeding 10°C (50°F). Since the initial analysis was performed, polar climate change has been well documented. Therefore, three global climate reanalyses (CFSR, ERA-Interim and JRA-25) are employed over the aforementioned domains to propose a modern depiction of the EM climate (1979-2009). The EM climate is reproduced using the original thermal parameters while poleward (equatorward) boundaries are approximated using the sea ice extent maximum (warmest month's sea surface temperatures). Climatological mean sea level pressure and wind speed are also analyzed to gain better understanding of regional mechanisms that play a role in formulating these boundaries.

Keywords: Polar Regions, Climate Change, Climate Variability

12:15PM: Garden Variety Hegemony: Industrial Agriculture And Conceptions Of Nature

BRADLEY AUSTIN¹, SARAH M. LOWRY²

¹ Department Of Geography, Kent State University, ² Department Of English, Youngstown State University

A systematic shift in the processes of food production over the last 60 years has created an environment where many lack the necessary knowledge base to be independent from industrialized agriculture's far-reaching influence on the bodies and minds of the nation and globe. This paper traces the emergence and disappearance of WWII Victory Gardens, the Green Revolution, and everyday acts of resistance in movements toward food sovereignty. We highlight the militaristic nature of American food and offer some insights into how this has changed our conceptions of what is natural.

Keywords: Discourse, Geopolitics, Food

Information and Empowerment (KSC Room310B)

8:45AM: A Case Study: Chinese Immigrant Families' Literacy Practice In Heritage Language Maintenance

SHU-HUI LIN

Teaching, Learning, & Curriculum, Kent State University

The U.S. Migration Policy Institute's 2008 Census data indicated that America's four largest immigrant groups originate from Mexico, the Philippines, India, and China. Chinese families often immigrate for the sake of their children's education (Chew, 2009; Perreira, Chapman, & Stein, 2006; Waters, 2003). Parents are children's first teachers, and thus the home environment plays a critical role (Lee, 2009) in furthering children's academic competence; Asian parents usually support their children's efforts by providing an environment conducive to studying (Ho, 2003; G. Li, 2002; Okagaki, 2001; Zhang, Ollila, & Harvey, 1998). This study explores the involvement that Chinese immigrant parents have in their children's "heritage language," hereafter referred to as Mandarin, maintenance after moving to the U.S. The purpose of this research study is to provide an in-depth analysis to understand and gain knowledge about how Chinese immigrant families support their children's Mandarin maintenance through parental involvement in their home milieus. This was accomplished in a three-fold manner: (1) clarify and record the nature of Chinese immigrant parents' beliefs in support of their children's Mandarin maintenance (speaking, listening, reading and writing); (2) encourage parental involvement that Chinese immigrant parents efforts to promote their children's heritage language maintenance.

Keywords: Case Study, Chinese Immigrant Families, Heritage Language Maintenance

9:00AM: "Their Blood Cries Out": Religious Zealotry And The Prophetic Modes Of Democratic Dissent In America

BRENDAN WRIGHT

Department Of Political Science, University Of Michigan

Political theorists have long sought to exorcise religious fanaticism from the body politic in order to produce, by turns, a rational, deliberative, and stable political order. I argue that the dominant understanding of religious zealotry as essentially threatening to democratic politics is incomplete and incorrect. I construct my argument through an analysis of the political performances of two American fanatics: abolitionist John Brown and Randall Terry, founder of the anti-abortion movement Operation Rescue. At face value these figures model a troubling, potentially anti-democratic vision of religiously fueled fanaticism. I use these historical figures to build a theoretical account of how the apparent excesses of religious fanaticism unsettle and contest hegemonic modes of thinking, perceiving, and acting. Terry and Brown construct their political intelligibility through religious idioms and perform prophetic enactments, which dramatize a confrontation between existing social practices and radical re-interpretations of foundational political commitments. I suggest that the fanatical register of political claims works through aesthetic interruption and transfiguration, and that it is because of these aesthetic dimensions that such actions have the potential to provoke citizen judgment, disrupt established social relations, and bring attention to the partialities and gaps in the terms of political sensibility and thought.

Keywords: Religion And Politics, Political Theory, Democracy

9:15AM: State Policy And African American Voter Turnout In Presidential And Midterm Elections: 1996-2008

BRIDGETT KING

Department Of Political Science, Kent State University

Voting is an integral part of the American democracy. Voting is the tool by which citizens are able to express their preferences and shape the government to best reflect policies derived from these preferences. However, how we are able as citizens to express these preferences by voting is largely determined by rules and policies that dictate when and how we physically register and cast a ballot. These rules vary from state to state. Because African Americans historically have been subject to unfair rules (poll taxes, literacy tests, property requirements, etc.) governing their access to the franchise it is imperative that we look at the way current voting policies affect the African American population. This research evaluates the effect of seven state policies (registration closing date, photo identification requirements, statewide computer registration database, in person early voting, Election Day registration, no excuse absentee voting, and felony disenfranchisement) on African American turnout in Presidential and midterm elections from 1996 to 2008. The research utilizes individual-level data from the US Census Bureau Current Population Survey (CPS) that has been merged with detailed state level voting policy, demographic, social and economic indicators.

Keywords: Voting, Political Participation, State Policy

9:30AM: Impact Of Identity On Foreign Policy

CAGLAYAN CETIN

Department Of Political Science, Kent State University

The end of the Cold War was a milestone in studying identity in IR, when it was realized that realism and liberalism are inadequate in explaining foreign policy behavior without considering the cultural and identical underpinnings. Thus, IR field witnessed an explosion of interest in the concept of culture and identity. Although explanations of international affairs and foreign policy which put greater importance on identity and culture mostly came from scholars embracing the constructivist approach; all major theories of IR –neo-realists, neo-liberals and constructivists- focused more on identity. Their approaches naturally differed from each other. This paper will examine how these theories deal with the concept of identity; their interpretation of the impact of identity issues on foreign policy and on the IR discipline in general; and the criticisms posed to these theories. Then, the future of study of identity impact on foreign policy will be dealt in the light of these theories and their different methods, such as discourse analysis and role theory.

Keywords: Identity, Foreign Policy, International Relations Theories

9:45AM: Saving For Retirement: Financial Literacy And Behavioral Biases

COLLEEN TOKAR ASAAD

College Of Business Administration, Kent State University

Personal financial planning and decision-making are becoming more and more important as individuals are assuming a greater responsibility for their retirement savings. While traditional theory assumes that individuals are rational, calculating agents who smooth their consumption over the lifetime, it is becoming increasingly clear that social and cognitive biases matter, steering decisions away from pure rationality. A comprehensive data set offers a unique opportunity to examine the relationships between demographics, financial literacy, social and cognitive factors, and total financial assets near retirement. Results indicate that males, whites and the highly educated possess the most financial knowledge and that financial literacy is positively related to an individual's total assets. However, social and cognitive factors are also predictive of an individual's total assets and retirement preparedness. Taken together, the results suggest that financial literacy is a critical component of retirement planning, but that social and cognitive factors also matter, moderating the relationship between financial literacy and total financial assets near retirement.

Keywords: Behavioral Finance; Financial Literacy; Retirement;

10:00AM: Information Processing In Bible Study Groups

DARIN FREEBURG

School Library and Information Science, Kent State University

This study focuses on information processing in Christian Bible study groups through surveys of three Midwestern churches. By considering the significance of the small group as integral to the vitality of religious organizations, this study will consider how these groups process information from sermons, books, and peers. This processing is considered in three parts: pre-discussion, local discussion, and post-discussion. Pre-discussion information processing includes all of the topic-specific information that members of these groups obtain prior to meeting as a group. This information is either unique to an individual or shared among many individuals in a group, and the nature of this information affects how it is used in actual discussion. Because of the religious nature of these groups, the study will explore the authoritative nature of information used, and whether or not this nature affects processing of information. Results show that Bible study groups report a significantly larger than expected quantity of unique information, but also that this information is continuously corrected by what is considered biblically correct. It is concluded that members join Bible study groups primarily for spiritual and relational purposes, but that this purpose does not restrain members from debate and discussion.

Keywords: Small Groups, Information Processing, Churches

10:15AM: The Life And Death Of The "Clash" Narrative For Islamic-Western Relations, 1990-2011

DOUG PENHALLEGON

Department Of Political Science, Kent State University

This paper provides a meta-analysis of the "clash of civilizations" debate for contemporary Islamic-Western relations. It is presented chronologically while drawing from two literatures in political science: policy entrepreneurship and social constructivism. The "clash" thesis as developed by Bernard Lewis and Samuel Huntington in the early 1990s hinged on an essentialist premise of incompatibility between "Islam" and liberal democracy, and by extension protracted hostility between the former as deviant cultural Other in contrast with the putatively freedom-loving "West." Although discredited by academics by the end of the 1990s, the clash thesis regained prominence after 9/11 and helped the Bush Administration contextualize the Iraq War, but ultimately collapsed under the weight of its own inaccuracies coupled with al-Qaeda's partially self-inflicted demise and the blossoming of reform movements throughout the Middle East and North Africa. By late 2011 it had become clear that the clash of civilizations between "Islam" and "the West" never truly existed beyond a false construct that briefly risked becoming a self-fulfilled prophecy, but which since 2006 has steadily dissipated and been replaced with alternative notions of co-existence borne of shared values and aspirations, even in the face of ongoing conflict.

Keywords: Clash Civilizations Meta-Analysis

10:30AM: The Nature Of Women's Empowerment In Turkmenistan

MAYAGUL SATLYKGYLYJOVA

School Of Foundations, Leadership, & Administration, Kent State University

Since the collapse of the Soviet Union Turkmen women have experienced exposition to the outside world, including western and non-western which reshaped women's thinking and changed their social and cultural values. Unfortunately, these values did not always match with the ones of older generation, thus it created trans-generational conflict. Having more educated girls and women reshaped the family structure and roles of women in the society. Therefore, this research examined the nature of women's empowerment in Turkmenistan. The focus was mainly on women's intrinsic meaning making of what empowerment is, what the process is of getting someone empowered and what the consequences are for themselves and others in the community. The data was collected in Balkanabat, Turkmenistan, over a three-month period. Eight Turkmen women participated in the study and the data collection strategies included open-ended interviews and observations. The findings of the study revealed that the mothers heavily influence the participants' perspectives and their meaning makings and that women are likely to pass them onto their children.

Keywords: Empowerment, Women, Turkmenistan

11:00AM: Wait, What Did That Say? Memory Effects In Political Comparison Ads And Rebuttals

REBECCA DINGUS

School Of Management, Kent State University

The continued influence effect (CIE) occurs when people persistently rely on misinformation, even when they can recall a correction. This study evaluates mechanisms to overcome the CIE within the context of political comparison ads. When direct comparative advertising involving an advertised brand communicates statements (which are often found to be false or misleading) about a named, specific comparison brand, people may be left with the wrong idea about the comparison brand. The comparison brand would then potentially be motivated to offer a correction, which may or may not be effective because of the CIE. Applying these concepts to political advertising, this study investigates what happens when Candidate A makes Statement X about Candidate B and then Candidate B offers a Statement Y in hopes of correcting misperceptions caused by the original Statement X. Within political comparative advertising, this study establishes the presence of the CIE and identifies corrective responses that are most effective at reducing this effect by comparing salience, variations of source of the corrective ad, and variations of the format of the corrective response. This contributes to comparative advertising literature by focusing on effectiveness of making corrections, which is important because of the competitive nature of comparative advertising.

Keywords: Continued Influence, Effect Comparison, Advertisements, Political Advertising

11:15AM: Regulating Rights: Balancing Copyright And Fair Use Of Information In A Digital Age

REKHA SHARMA

College of Communication & Information, Kent State University

For every case upholding the U.S. Constitutional rights to free expression or a free press, there are just as many other legal precedents defending limits on those freedoms. Copyright is just one of the laws designed to protect creative works. Fair use is just one of the principles allowing access to these works. The balance between the two ideas has shifted over the years in response to new challenges. The line between them is often interpretive, at times arbitrary. This ambiguity is exacerbated by the increasingly technological nature of communication and the digitization of information in an ever-expanding global dialogue. Although copyright and fair use laws have adapted to changing environments before, emerging technologies add to the uncertain logic governing the creation and consumption of society's collective body of knowledge. Of special concern is the possibility that changes in the law will erode fair use provisions regarding news in favor of the rights of copyright holders. How will news organizations be affected? Will people still be able to access information necessary for personal growth, political efficacy, and cultural innovation? The ensuing debate will determine how the United States will evaluate news values, communication, and technology in a global, digital environment.

Keywords: Copyright, Fair Use, Communication

11:30AM: Framing The Text In British Working Women's Life Writing

SARAH MACDONALD

Department Of English, Kent State University

My presentation analyzes the ways in which publishers and authors frame their self-presentation for public consumption. My argument begins with the difficulty working women had in delivering their life narratives due to the lack of consideration they were given from society as legitimate authors. I argue that in order to make the texts appropriate for public consumption, publishers and authors had to frame the text in such a way as to legitimize the writing.

Keywords: Life Writing, Women, Framing

11:45AM: Iraq's De-Ba'athification: Analyzing The Degrees To Which The Implemented Policy Reflected The Particular Rationales

AYSEGUL KESKIN ZEREN

Department Of Political Science, Kent State University

Lustration is one of many transitional justice mechanisms designed for addressing the atrocities of former regime, restoring peace, providing justice, and engendering unity and reconciliation. It specifically aims to purify the public sphere of former regime members or of people who lack integrity. Although it has been employed in various contexts, it has remained the least studied mechanism of all, even after government officials from the Hussein regime in Iraq were purged under the US-sponsored de-Ba'athification project in 2003. My research argues that this latest and unique lustration example is important to study because it was initiated and administered by an occupying power and it led to insurgency in Iraq. Given that, my research will describe and analyze the rationales given by different segments of Iraqi society and by US officials for adopting lustration laws. I will also analyze the degrees to which the identified reasons for de-Ba'athification were (or were not) incorporated into both the design and the implementation of de-Ba'athification. Data will be based on interviews with Coalition Provisional Authority members and administrators, Higher National De-Ba'athification Commission members, and ex-Ba'athists.

Keywords: De-Ba'athification, Iraq, Lustratio

12:00PM: When The Fog Dissipates: The Choice Between The Value Creation And Value Appropriation Strategic Emphasis In A Partner As A Function Of Information Asymmetry

TODD MORGAN, SERGEY ANOKHIN

Department Of Marketing And Entrepreneurship, Kent State University

We study equity partnerships between large corporations and small firms over the period from 1998 to 2001 to investigate the impact of strategic emphasis that the large corporations adopt on their attractiveness to small firms. Our results indicate that large corporations with the emphasis on value creation are attractive to small firms when information asymmetry between the partners is low. When information asymmetry is high, small firms tend to choose corporate partners that emphasize value appropriation.

Keywords: Equity Partnerships, Strategic Emphasis, Competitive Advantage

12:15PM: Using The Arts For Economic Development

TRICIA OSTERTAG

Public Administration & Urban Studies, University Of Akron

The nonprofit arts industry, which generates \$166.2 billion in economic activity each year, is a powerful force for economic development nationwide. Communities that invest in the arts reap additional benefits of jobs, economic growth, and quality of life. This paper will examine the economic stimulus that the arts can bring to communities when founded and nourished by sound business principles. The arts can create an influx of tourism, a surge in job creation, and have the ability to draw a young, creative, and energetic workforce to a community. Nonprofit arts and culture organizations are an important component of a prosperous community. They are employers, consumers, producers and members of local organizations such as chambers of commerce and because of these roles, they have a strong position in the economic stability of an area. The direct economic impact that this has will be explored. The paper will delve into the successful creation of a community arts district and its effect on the local economy by examining the Canton Arts District. This in-depth look at a depressed city center's metamorphosis into a thriving arts hub bares evidence to the power the arts can provide.

Keywords: Arts, Community, Development

Biology Health and Social Problems Part II (KSC Room 310C)

9:30AM: Can You Hear Me Now? Sext Messaging: Investigating The Uses And Effects Of New Mediated Communication Technologies

MOLLY TAGGART

College Of Information and Communication, Kent State University

In today's world many people are using mobile phones to write, send, and receive short textually based messages often of 140 characters or less. Sext messages are text messages with sexually suggestive language or innuendo, and/or some type of sexually suggestive visual imagery including photographs and drawings. Recent research from the Pew Research Center's Internet and American Life Project found that of adolescents ages 12-17 who owned a cell phone, 15% self-reported having received sexually suggestive nude or nearly nude images of someone they know (Lenhart, 2009). While this is an interesting phenomenon in and of itself, sext messaging is more fascinating when considering the broad and deep communication facets related to this new mediated channel of behaving and interacting with other people.

Keywords: Sexting, Texting, Mobile Communication, Media Uses and Effects

9:45AM: Field Induced Biaxial Order And Differential Quenching Of Fluctuations In A Uniaxial Nematic With Negative Dielectric Anisotropy

VOLODYMYR BORSHCH, SERGIJ SHIYANOVSKII, OLEG LAVRENTOVICH

Liquid Crystals Institute, Kent State University

An electric field applied to a dielectric can change the structural symmetry and thus the optical properties of the material. If the material is isotropic, the electric field can induce an optically anisotropic uniaxial state; the effect is well known as the Kerr effect. When the electric field is applied perpendicularly to the director n of a nematic liquid crystal (LC) with negative dielectric anisotropy, the field can change the symmetry of the LC inducing a secondary axis m of molecular order that is perpendicular to n , so that the material in the field becomes a biaxial nematic. At the same time, other intrinsic property of LC, the fluctuations of the director n become anisotropic under the applied electric field. Both effects change optical properties of the LC material. Using the difference in characteristic relaxation times, we separate these effects by measuring the field-induced changes in optical response. The study helps to evaluate the likelihood of the spontaneous biaxial order in nematic materials.

Keywords: Field-Induced Biaxiality; Fluctuations; Nematic Liquid Crystal

10:00AM: Triangular Flow Of Charged Particles In Heavy Ion Collisions From Star Experiment At Rhic

YADAV PANDIT

Department of Physics, Kent State University

The study of azimuthal anisotropy, characterized by Fourier coefficients, is widely recognized as an important tool to probe the hot, dense matter created in heavy ion collisions. The third harmonic flow (v_3), also called triangular flow, can shed light on the initial geometry and its fluctuations, and on the hydrodynamic expansion of the medium. We present the measurement of the triangular flow (v_3) for charged particles from Au + Au collisions at $\sqrt{s_{NN}} = 200$ GeV recorded with the STAR detector at RHIC. The differential measurement of triangular flow is presented as a function of transverse momentum (p_T), pseudorapidity (η) and centrality. Results will be compared with the transport and hydrodynamic model calculations

Keywords: Heavy Ion Collisions Azimuthal Anisotropy Triangular Flow

10:15AM: Field Induced Quantum Criticality In Ytterbium Substituted Cerium Cobalt Indium Five (CeCoIn5)

YOGESH SINGH

Department Of Physics, Kent State University

For long time in history of superconductivity (SC), the common belief among scientific communities was that the SC and magnetism cannot go together in a material. With the advent of SC research, materials were found which show co-existence of these two phases. Since then the major part of the SC research is devoted to understand the interplay between these and other interaction mechanisms. Heavy fermions (HF) are the materials which provide all sorts of interaction mechanisms and hence are suitable candidates for study of mechanism of SC. In an effort on same lines, we performed the study on Ytterbium (Yb) substituted CeCoIn5, which is a well known HF superconductor. Substitution on Ce sites makes this material very interesting as compared to other rare earth substitutions. This substitution shows multiple different and useful properties which are promising for the future of the superconductivity research and uses. Our focus basically is to study quantum criticality (QC) in this system which is one of the most fascinating fields of research in physics and chemistry. Our work provides a new way of probing QC and enlightens many of the aspects, not discussed previously, and hence leads to the better understanding of physics of superconductors.

Keywords: Superconductivity, Quantum Criticality, Heavy Fermions

10:30AM: Ionization Properties Of Phosphatidylinositol 4,5-Bisphosphate In Complex Ternary Lipid Systems

ZACHARY GRABER¹, ARNE GERICKE², EDGAR E. KOIJMAN³

¹ Department Of Chemistry, Kent State University, ² Department Of Chemistry, Worcester Polytechnic Institute, ³ Department Of Biological Science, Kent State University

The important signaling lipid Phosphatidylinositol 4,5-bisphosphate [PI(4,5)P₂] is highly charged, and electrostatics play a crucial role in protein/PI(4,5)P₂ interactions. The exact charge on PI(4,5)P₂ can be affected by cellular conditions. We have used solid-state MAS 31P-NMR to examine the ionization behavior of PI(4,5)P₂ in multilamellar vesicles containing mixtures of other lipids, from pH 4 to 10. Previous research has shown a complex ionization pattern for PI(4,5)P₂ in the binary PC/PI(4,5)P₂ lipid mixture (Kooijman et al. Biochemistry 48 (2009) 9360). In more complicated lipid mixtures, we observe significant deviations from the PC/PI(4,5)P₂ titration curve. The hydrogen-bond donor lipid PE causes a shift of the titration curve of the 4- and 5-phosphate of PI(4,5)P₂ to lower pH values, indicating stabilization of a more negatively charged form of PI(4,5)P₂. In PC/PI(4,5)P₂ mixtures, two opposing effects lead to a net charge similar to the charge found in the PC/PI(4,5)P₂ mixture. The enhanced negative charge in the membrane leads to an increased PI(4,5)P₂ protonation. This effect is opposed by PI/PI(4,5)P₂ hydrogen bond formation which results in increased deprotonation of PI(4,5)P₂. In mixtures containing PS, the titration curve appears to show a pH dependent shift to higher pH values, indicating increased PI(4,5)P₂ protonation.

Keywords: Phosphatidylinositol 4,5-Bisphosphate, Ionization Properties, Lipid Bilayer

11:00AM: Duolink II In Situ Proximity Ligation Assays Reveal Interaction Of 14-3-3 Protein Isoforms With CDC25B Phosphatase In Mouse Oocyte Maturation

SANTANU DE, DOUGLAS KLINE

Department Of Biological Science, Kent State University

Mammalian oocytes are arrested at meiosis prophase I due to high intracellular concentration of cyclic adenosine monophosphate (cAMP) that keeps protein kinase A (PKA) active, which phosphorylates and inactivates M-phase inducer phosphatase 2 (CDC25B) and mitosis promoting factor (MPF). The pre-ovulatory surge of luteinizing hormone releases the meiotic arrest by declining intracellular [cAMP] – this results in maturation of the oocyte into a fertilizable egg. 14-3-3 proteins regulate various intracellular events including cell cycle control, and are thought to bind to and sequester phosphorylated CDC25B in the cytoplasm of oocytes, arresting oocytes at meiosis prophase I. We previously identified CDC25B and all seven mammalian isoforms of 14-3-3 in mouse oocytes and eggs. The present study, using Duolink II in situ Proximity Ligation Assays (PLA), reveals prominent interaction of all isoforms of 14-3-3 with CDC25B throughout cytoplasmic as well as nuclear compartments in mouse oocytes and eggs. However, marked reduction in the numbers of Duolink II fluorescent reaction spots are noted in eggs as compared to oocytes, consistently in multiple experiments, for interaction of CDC25B with all 14-3-3 isoforms, except 14-3-3 tau. These results and further studies will elucidate the importance of 14-3-3 protein interactions with CDC25B in mammalian oocyte maturation.

Keywords: CDC25B, 14-3-3, Interaction

**11:15AM: Holocene Hydrologic Variability Reconstructed Using The Phytoplankton Succession Of A Small Closed Basin
Lake In South Western British Columbia, Canada**

LORITA MIHINDUKULASOORIYA¹, ORTIZ JOSEPH¹, MARK ABBOTT², DAVID POMPEANI², BYRON STEINMAN²

¹ Department Of Geology, Kent State University, ² Department Of Geology And Planetary Science, University Of Pittsburgh

Diffuse spectral reflectance (DSR) is quantitative method of analyzing the organic matter content and mineral composition of sediments. DSR measured on three sediment cores collected from Cleland Lake, British Columbia. Four principal components (PC) were identified that explained 95% of the variance in the reflectance data. Three of the PCs correlated with the standard reflectance curves of diatom, algae and blue-green algae (BGA) pigments and therefore can be used as paleo-productivity (LP) proxies. A significant correlation ($r=0.82$, $\alpha=0.05$, $n=13$) was observed between PC 3 and total annual rainfall during 1829 to 2007 A.D., suggesting that low rainfall is likely correlated with greater warmth and stratification and favor the growth of BGA, while higher rainfall leads to transition from a BGA community to a diatom community when runoff and nutrient flux increases. Between 13,900 to 11,900 years B.P lake was dominated with dinoflagellate algae characteristic to nutrient depleted water and water with low light intensities, including lakes covered with snow (Sze 1986) while early Holocene is characterized by high BGA. Reconstruction of paleo-rainfall based on the LP proxy suggested a decline in the rainfall and low lake levels during this period simultaneous with the northern hemisphere summer insolation maximum.

Keywords: Lake Productivity, Spectral Reflectance, Holocene Climate

11:30AM: Stabilization Of Blue Phase Liquid Crystals Using Uv Curable Nanoparticles

EMINE KEMIKLIOGLU, JEOUNG-YEON HWANG, LIANG-CHY CHIEN

Liquid Crystals Institute, Kent State University

We report the stabilization of blue phase liquid crystal (BPLC) using UV curable nanoparticles and their electro-optical (E-O) behavior using in-plane switching devices. We observed that the polymer type and concentration play important roles on the thermodynamic stability of the polymer-stabilized BPLC. Polymer stabilization leads to broadening blue phase temperature range to 42°C, enabling the temperature-independent Bragg reflection wavelength and enabling a low switching voltage for optical Kerr devices. The effects of polymer morphology on the E-O behavior of Kerr devices will also be presented.

Keywords: Polymer Stabilized Blue Phase, Bragg Reflection, Temperature Independent

11:45AM: The Effect Of Peer Influence On Treadmill Exercise In Collegiate Distance Runners And Non-Runners

ANDREW CARNES

School Of Health Sciences, Kent State University

There is little research exploring the impact of peer influence on physical activity in competitive athletes. Exercise with others may increase training duration, intensity, or enjoyment, potentially leading to enhanced performance or fitness. Purpose: The purpose of this study was to determine if, relative to an alone condition, exercising with a partner affects average running speed, perceived exertion, or liking of the exercise during a self paced 30-minute run in highly trained distance runners or non-runner controls. We predicted that the presence of another runner or peer would increase average running speed and liking of the run. Methods: Fourteen healthy male competitive distance runners, age 18-24, and ten male non-runner controls, age 20-27, completed two running sessions under two different social conditions (alone, with a peer). Heart rate, perceived exertion, distance ran, and liking of the run were recorded in each trial. Results: There were no significant ($p > .09$) main or interaction effects of condition (alone, with peer) or group for any of the dependent variables. Conclusion: Contrary to our hypothesis, the presence of a peer did alter the amount, intensity, perceived exertion, or liking of treadmill exercise in either runners or non-runners.

Keywords: Peer Influence, Running, Exercise

12:00PM: Validating The Radimer Hunger Scale In Hiv/Aids Population: An Exploratory Factor Analysis

AIMEE BUDNIK, SCOTT OLDS, VINAY CHERUVU

College Of Public Health, Kent State University

This pilot study seeks to validate the Radimer/Cornell Hunger Scale in a HIV/AIDS population who utilize a local food pantry in Akron, Ohio. Access to nutritionally adequate food may influence an HIV/AIDS individual's risk of malnutrition and wasting syndrome. The pilot study is a survey design. The study participants were a convenience sample. Subjects completed a brief, anonymous Radimer/Cornell hunger scale survey. An exploratory factor analysis was performed to identify items to group them into factors using key underlying attributes (household, individual). Items on the hunger scale measuring child level hunger were not considered in this analysis. Seventy-six surveys were completed. Cronbach's alpha of 0.90 revealed high internal consistency. Exploratory factor analysis loaded on two factors: one factor contained items measuring household level hunger and a second factor contained items measuring individual level hunger. Previous studies introduced the idea that food security may play a larger role than previously addressed; however, no studies have focused on describing a valid and reliable instrument. These preliminary analyses suggest that the scale could be applied to this population and possibly serve as a rapid screening tool for public health professionals to identify individual level hunger in this high risk population.

Keywords: Food Security, HIV, Psychometric Properties

12:15PM: The Fate Of Today's Decapod Crustaceans In Coral Reefs: Lessons From The Past?

ADIËL KLOMPMAKER

Department Of Geology, Kent State University

Coral reefs are under intense stress today due to reef destruction by humans. Examples of this destruction include pollution, bottom trawling, and the emerging problem of ocean acidification. Not only could many coral reefs disappear at the end of this century, but also the associated fauna including decapod crustaceans (crabs, shrimp, etc.) that rely on these reefs. This is of particular importance because these organisms are extremely abundant in today's coral reefs, more so than in most other environments on earth. The fossil record can show whether decapods were also abundant in fossil reefs. Additionally, the fossil record may help to elucidate whether the number of decapods declines in periods of coral reef collapse. Therefore, I focus on reefs in the Mesozoic Era (251–66 million years ago) in which coral reefs collapsed at least two times.

Keywords: Decapod Crustaceans, Fossils, Coral Reefs

Poster Presentations

Undergraduates Level

1. Parallel Lumbar And Pelvic Morphology In Atelines And Early Hominids: Clues To The Earliest Hominid Adaptations To Upright Walking?

ALLISON MACHNICKI¹, C. OWEN LOVEJOY¹, YOHANNES HAILE-SELASSIE², LINDA SPURLOCK², SÉRGIO L. MENDES³, KAREN B. STRIER⁴, MELANIE A. MCCOLLUM⁵

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Human bipedality is unique among primates, and lumbar lordosis is its most critical functional requirement, because it obviates the need for the bent-hip-bent-knee (BHBK) gait as practiced by African apes. The latter have eliminated lumbar mobility by trapping the one/two most caudal lumbar between dorsally extended ilia. The earliest known hominids show an opposite state—emancipation of the most caudal lumbar by reduction in iliac height and expansion of sacral alar breadth. Moreover, the Last Common Ancestor of African apes and hominids retained a long lower spine (most likely 6 lumbar). Such mobility would have permitted more effective bipedality than is seen in extant apes. However, the most caudal lumbar in Old World Monkeys is also partially trapped by dorsally extended ilia. Could iliac height reduction and sacral broadening have been the earliest adaptations to upright walking in hominids? Atelines have flexible prehensile tails, which, when used with their forelimbs for support, induce extreme lordosis. We anatomically examined their pelves and lumbar columns and also observed lower limb postures “in the wild.” We find parallels with hominids in both, suggesting that lowering iliac height is a possible first step in directly evolving bipedality without any reliance on a BHBK gait.

Keywords: Hominid, Bipedalism, Evolution

2. Spatial Analysis of Ancient Maya Settlement Near Karst Sinkholes in Xuenkal, Mexico

PETER KOBY

Department Of Geography, Kent State University

Xuenkal was a settlement of the ancient Maya dating from the Late Preclassic to Terminal Classic periods (~400BC to ~1000AD). This research focuses on a geographic analysis of eleven limestone sinkholes (rejolladas) in the settlement core to determine their significance to local Maya settlements and their utilization by the ancient Maya. In the field season of 2011, data were collected from the site, including GPS and GPR data, soil samples from the excavation of test pits, and archaeological survey data. GIS analysis using Esri's ArcMap software was performed using these 2011 data as well as data collected in previous field seasons. Primary analysis involved the use of buffers to categorize ancient structures by distance to rejolladas. In addition, the density of structures by area was calculated and statistically analyzed. These analyses showed a quantitative relationship between the structures and the sinkholes, with a statistically significant preference to settlement in proximity to the sinkholes.

Keywords: Maya, GIS, Sinkholes

3. The Societal Differences In Prison Systems In China And The United States

THOMAS LUKE

Department Of Sociology, Kent State University

This poster will examine the differences in the Chinese and United States prison systems. The way they think, react, and the mindset of the societal norms and the way people should be treated is illustrated. The prison system demonstrates the governmental mindset of the countries examined. I have put forth the key differences in the way that crimes are punished between the Chinese justice system and the United States justice system. Punishment and time given for criminal offenses reflect the inherent cultural differences between these diverse countries. The Sino-American criminal system is an interesting and intriguing study in criminal systems.

Keywords: Criminal Justice, Comparative Sociology, Culture Differences

4. The Effect Of Climate Change On Natural Disasters: A College Student Perspective
JENNIFER RUPER, MELISSA PHILLIPS, ADAM CINDERICH, JENNIFER BURRELL, RACHEL WILL
Department Of Geography, Kent State University

Inevitably, in the debate on climate change, questions arise as to what is actually affected by climate change. Some will say nothing at all or it does not exist, while others forecast a grim future and a vastly different world where humans may or may not be able to survive. Caught in the middle of these extremes exist the general public who are left to sort through the information and form their own opinions. A common discourse today in climate change is whether or not it is affecting the frequency, duration, and/or intensity of natural disasters. In this study, college student's perception of the climate change and natural disaster relationship offers an advantage because they represent a unique subset of society that has been exposed to and impacted by recent climate change research. Results vary by disaster, type of disaster (atmospheric vs. non-atmospheric) and gender with few strong relationships observed when relating to a student's choice of major.

Keywords: Climate Change, Natural Disasters, Student Perception

Master's Level

5. The Relationship Between Perfectionism And Holland Codes Among Undergraduate Students

AMIE MARTIN, SULEYMAN AKCIL, PHILIP GNILKA
Counseling And Human Development Services, Kent State University

The purpose of the study is to investigate how perfectionism influences vocational interests and career decision-making self-efficacy in young adults. In this study the following research questions are asked: (a) What is the relationship between career interests, career decision-making self-efficacy, and perfectionism? (b) Does perfectionism and career decision-making self-efficacy predict various career interests?

Keywords: Perfectionism, Career, Self-Efficacy

6. Drug-Use Correlates Of Suicide Attempts And Ideations In A Sample Of In-Custody Juveniles

ANGELA KAVADAS
College Of Public Health, Kent State University

This preliminary study examines risk factors for suicide — primarily drug abuse — among detained juveniles. A sample of 359 incarcerated females (20.1 percent) and 1,425 males (79.9 percent) adolescents in an urban juvenile detention center in Ohio were studied. Suicidal ideation and suicide attempts were examined by questionnaires; results demonstrated 19 percent had thought about suicide and 12 percent had attempted suicide. Incarcerated juveniles revealed higher rates of suicide ideation, attempts of suicide, and overall risk factors than juveniles in the general population. These differences continue to raise concern and offer opportunities for further study. Additional risk factors that were explored consisted of alcohol use, drug use, treatment history, mental and physical health problems, sexual behavior, anger management, physical violence, and family support

Keywords: Drugs, Suicide, Juveniles

7. Pet Food As Wasted Nutrition - The Startling Amount Of Pet Food Usage In Western Countries

BRANDON LUKE
Department Of Geography, Kent State University

The amount of pet food produced in Western countries is a staggering figure. The amount of food consumed by pets could feed many poor nations, and almost the entire continent of Africa. This food is instead used on pets, food that is of complete human quality, and often times, of USDA human quality. There is a system of class discrimination that has taken pets from much needed workers to a show of decadence that is literally starving some countries from the food that they could use to feed their families. This is an examination of the use of food as determined by society, of who can eat, and who cannot.

Keywords: Pet Geography, Statistics, Human Geography

8. Investigating Changes In Knowledge And Perceptions Of Autism Spectrum Disorder (Asd) In Undergraduate Students Through Experiential Learning

COURTNEY DOUGLAS, RACHEL STRINKA
Speech Pathology And Audiology, Kent State University

We are interested in learning how training and experience changes the perceptions and attitudes of undergraduate students preparing for a career in working with those with Autism Spectrum Disorder (ASD). We collaborated with the staff at Hattie Larlham to arrange six play sessions for the undergraduates and children with ASD to interact around planned activities, games, crafts, and snacks. Before participating in the play sessions, the undergraduates attended an orientation providing them with general knowledge about ASD. They were asked to complete a knowledge and perceptions survey at three data collection points. By administering the surveys before and after the orientation, and at the end of the program, we obtained data regarding if/how their knowledge about perceptions of ASD changed as the result of their orientation and/or their experience. In addition to the knowledge and perception survey, the undergraduates will be asked to complete an experiential learning end of course survey in order to obtain data related to their opinions about their experience. It is hypothesized that undergraduate students will display an increased knowledge of ASD and more accurate perceptions of children with this disorder after participating in this program, as indicated through their responses to the surveys.

Keywords: Undergraduate Experiential Learning

9. Writing & Well-Being In Undergraduates: Preliminary Findings

CRYSTAL GABERT-QUILLEN, DOUGLAS DELAHANTY

Department Of Psychology, Kent State University

Few stress-reducing interventions have been developed that focus on relieving health problems in undergraduates. The purpose of the proposed study is to examine the efficacy of written emotional expression (WEE) at reducing pain frequency and stress in undergraduates. Preliminary findings show a group x time interaction for mood. Compared to those in the time management group (N = 48), undergraduates in the WEE group (N = 53) had significant increases in positive mood and significant decreases in negative mood over the three writing sessions. Preliminary findings from a sample of 66 undergraduates who completed their 1- and 3-month follow-ups demonstrated that while there was no group main effect, there was a significant time main effect for pain frequency ($F(2,64)=3.79, p=.025$) and perceived stress ($F(2,65)=5.26, p=.006$). More specifically, regardless of group, participants saw a decrease in how much pain (initial: $M = 9.47$, 1-month: $M = 8.29$, 3-month: $M = 6.92$) and how much stress (initial: $M = 22.49$, 1-month: $M = 21.41$, 3-month: $M = 21.04$) they experienced over 3-months. Results demonstrate the impact of writing on mood and pain frequency, but possible alterations to the writing paradigm are needed.

Keywords: Intervention, Stress, Pain

10. Geographies Of Dispossession : Justifying Progress and Modernity

GABRIELA BRINDIS ALVAREZ

Department Of Geography, Kent State University

Merged in the ideas of progress and development, and trying to erase and destroy what was considered decaying neighborhoods, old central railroad station, warehouses, storage houses and slums, 102 buildings containing 11,908 apartments were constructed. The Construction of the *Conjunto Urbano "Presidente López Mateos (Nonoalco - Tlatelolco)"*, a mega housing complex in Mexico City, was constructed in 1964 following the displacement of more than one hundred families, many of them impoverished residents. *Tlatelolco* became one of the main emblems of modernity and urban regeneration in Mexico City in the 1960's, in light of the Olympics of 1968. Through the use of the project's official maps and presentation, I examine the official use of cartographies towards the justification of controlling and appropriating space for implementing new ideas that displace and disposses people in the sake of progress and modernity.

Keywords: Memory, History, Public-Space

11. Can Geothermal Greenhouse Agriculture Increase Food Security In Cold Climate, Developed Countries?

GINA BUTRICO

Department Of Geography, Kent State University

Food security is a term often associated with developing countries. However many developed countries also face food insecurities, many of which are often overlooked. Low temperature geothermal energy is available in most countries and is ideal for supporting a geothermal greenhouse. The use of greenhouse agriculture creates an internal food supply that increases food security in countries that otherwise rely on imports for food. Could a stronger focus on geothermal greenhouse agriculture enhance food security in developed countries in climates that do not allow traditional agriculture?

Keywords: Geothermal Greenhouse Agriculture, Food Security, Developed Countries

12. An Examination Of Frequency Of The West Nile Virus In The United States, At The State Level, In 2009 And 2010.

JACQUELINE A. LUKE

Department Of Geography, Kent State University

West Nile Virus has been problematic, in the United States for more than a decade. This study examines the frequency of occurrence of infection in humans, bird, mosquito, and veterinary. Mapping techniques were employed to examine the patterns of infection, in the four factors. Statistical correlations were examined for the four factors, examining the effectiveness of bird infections in predicting human infections. The current method of testing for the virus is to examine both bird and mosquito infections. Measuring the infections in the mosquitoes is a time consuming and costly method. The correlation between the human/bird and human/mosquito are very similar. This indicates that the testing of birds is equally effective as the testing of mosquitoes.

Keywords: West Nile Virus, Medical Geography, Statistics

13. The Stimulation Theory And The Theory Of Cognitive Dissonance: A Multi-Disciplinary Approach To Urban Design

JULIE WHYTE

College Of Architecture And Environmental Design, Kent State University

Design fields cannot function as individual, standalone professions. Support for a multi-disciplinary approach to design has been gaining momentum since the 1950s as a result to growing criticism of irresponsible and careless design practices. Environmental Psychology, which is defined as the reciprocal relationship between man and the environment, is significant in understanding the psychological implications of urban design. The Stimulation Theory, a subset of the field of Environmental Psychology, suggests that a balance of stimuli in an environment can facilitate a balanced environment. The Theory of Cognitive Dissonance, a subset of the field of Social Psychology, proposes that an uncomfortable state of mind is the result of a person having two conflicting thoughts simultaneously. The pairing of the Stimulation Theory with the theory of Cognitive Dissonance is significant because these different theories are two sides of the same coin. They represent external stimuli and internal psychological processes, respectively. Through the particular study of Environmental Psychology's Stimulation Theory and Social Psychology's Theory of Cognitive Dissonance, cues from each concentration can inform and vastly improve the psychological comfort, quality, and success of urban spaces while advocating for a multi-disciplinary approach to design.

Keywords: Urban Design, Environmental Psychology, Cognitive Dissonance

14. Does Mate Condition Constrain The Upper Limits Of Sexual Selection?

LARA TROZZO

Department Of Biological Science, Kent State University

I investigated effects of nutritional condition on upper limits of sexual selection using Bateman gradients, which represent how fitness increases with additional mates. Bateman's 1948 experiments demonstrated a stronger correlation between fecundity and number of mates for males than for females. He cited this as the underlying cause of sexual selection. The slopes of regressions of fecundity on mating success are commonly called "Bateman gradients". Upper limits of Bateman gradients represent upper limits (highest potential strength) of sexual selection. I performed controlled mating experiments to estimate the effect of mate condition (due to protein-limitation) on these upper limits. Poor nutrition may lower upper limits by decreasing female fecundity and the value of paternal investment. I hypothesized that matings between low-condition individuals would result in decreased maximum fecundity and decreased upper limits (compared to matings between high-condition individuals) and that upper limits for females would be lower than for males. Protein-limited female matings did not differ from high-protein matings in maximum fecundity or upper limits. Protein-limited males exhibited lower upper limits (a smaller increase in maximum fecundity) from remating than protein-satiated males. Further analysis is underway. These results demonstrate how nutritional condition affects the potential for sexual selection.

Keywords: Sexual Selection, Bateman Gradients, Mate Condition

15. Robin Hood & Zorro: The Conjoined Twins Of Hollywood

MARYBETH CIEPLINSKI

Department Of English, Kent State University

In 1920, Douglas Fairbanks Sr. produced the very first Zorro movie: a silent film set in early-1800s California based on a year-old American novel by Johnston McCulley. The Mark of Zorro scored the highest gross ever collected in one day (not just opening day), ushering in a new movie genre--the action-adventure comedy. The overwhelming success of Zorro led Fairbanks to choose Britain's Medieval-era Robin Hood tales for his next swashbuckling film in 1922. Thanks, in equal measure, to Douglas Fairbanks' vision and to Hollywood's insatiable thirst for new adventure/comedy movies, Robin Hood and Zorro, originally so distant from each other in historical time period and geographic location, became inextricably linked together. My research has uncovered that Hollywood periodically revives this link with new films and television series released chronologically close enough together that the connection between them is undeniable. A nearly-continuous tradition of tandem Robin Hood and Zorro releases began in 1922 and has continued for almost a century. A timeline poster presentation will clearly demonstrate how these legendary characters have captured the industry's imagination throughout its history, and continues to do so right up to the present day.

Keywords: Film, Robin Hood, Zorro

16. Developing Sustainable Transportation: Bike Sharing

MEGAN PETROSKI

Department Of Geography, Kent State University

Bike sharing is an effective way of providing access to sustainable modes of transportation to a large population. This stems from a desire by the campus community to begin a bike-sharing program that moves students, faculty, staff, and community members from one place to another. Current transportation patterns on the Kent State University campus and within the city of Kent demonstrate that bike-sharing has a great deal of potential. Based on a web survey administered in 2010, about 60% of Kent State University do not have access to working bikes. This represents a large population of potential users. To address this issue, Kent State recently began a pilot program- FlashFleet- with fifty bikes in six locations around campus. Our efforts are now focused on expanding the program to meet this demand as well as to move towards an automated system which would make checking bicycles out more convenient for users.

Keywords: Sustainability, Bikes, Bike Sharing, Green, Campus

17. Prevalence Of Depression And Anxiety Among United States Adults: Association With Sleep Deprivation

MOLLIE STURM, VINAY CHERUVU

College Of Public Health, Kent State University

Background Lack of sleep is a known risk factor for many poor health outcomes. However, the risk for mental health disorders, particularly, depression and anxiety, in US adults with sleep deprivation remains unclear. The objective of this current study is to investigate the association between sleep deprivation and mental health disorders. Methods Cross-sectional data from the 2008 Behavioral Risk Factor Surveillance System (BRFSS) were used to estimate the prevalence of insufficient sleep, anxiety and depression, among US adults. Multinomial logistic regression models were used to model the probability of depression only, anxiety only, or both, in relation to insufficient sleep adjusting for all potential confounders. Data were analyzed in 2011 and accounted for the complex sampling design of the BRFSS. Results The prevalence of insufficient sleep, at varying levels as measured in the past 30 days, was 78.9%. The prevalence of depression only is 7%, anxiety only is 4.5%, and both were 7.8%. After controlling for all potential confounders, sleep deprived individuals were at a significantly higher risk for reporting depression, anxiety, or both, compared to individuals who reported no sleep deprivation. Conclusions These results provide new insights in understanding the association between sleep deprivation and mental health disorders.

Keywords: Depression, Anxiety, Sleep Deprivation

18. Bidirectional Effects Of Increasing Histone Acetylation On Extinction Learning

PATRICK CULLEN, CHRISTOPHER LEPPLA, SYDNEY TRASK, BROOKE DULKA, MAESON LATSKO

Department Of Psychology, Kent State University

Two experiments examined the effects of systemic injections of the histone deacetylase inhibitor NaBut on the retention of fear extinction. In Experiment 1, male C57BL/6J mice received subcutaneous injections of either 1.2 g/kg NaBut or vehicle following two consecutive days of extinction training. All animals were tested for fear 24 hrs post-injection. NaBut enhanced extinction learning by reducing spontaneous recovery compared to vehicle animals. However, NaBut did not attenuate renewal of fear when animals were tested in a context separate from extinction training. In Experiment 2, all animals received a cued fear conditioning trial followed by two consecutive days of extinction training and immediately received an injection of 1.2g/kg NaBut or vehicle. Animals were tested for retention of extinction 10 days following extinction/injection. NaBut did not significantly attenuate spontaneous recovery of fear but did result in significantly more renewal of fear compared to control animals. These data replicate previous studies that find NaBut-induced extinction retention enhancement via attenuation of spontaneous recovery of fear. Interestingly, these data indicate that NaBut also enhances the context component of the extinction memory by enhancing extinction's context-dependency. These two experiments provide evidence that memory enhancing drugs may not affect extinction learning in the same direction.

Keywords: Extinction, Renewal, Nabut

19. Molecular Evolution Of Ctl Epitopes In Hiv-1: Understanding Selection Acting On Associated Epitopes

REEBA PAUL

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During viral infection, the interactions between the host immune system and the viral epitopes, such CTL epitopes, are known to play a major role, including in the course of human immunodeficiency virus (HIV-1) infection. Often the persistent selective pressure from the immune system leads to accumulation of amino acid changes in CTL epitopes leading to "escape" from the immune recognition. However, certain heterogeneity exists among CTL epitopes in HIV-1 where some epitopes harbor very low levels of amino acid substitutions despite ongoing interactions with the immune system. We have recently described a set of so-called "associated epitopes" (Paul and Piontkivska 2009, 2010) that consists of CTL epitopes that frequently co-occur together among different subtypes of HIV-1, including circulating recombinant forms, and exhibit signs of strong purifying selection acting at both the amino acid as well as nucleotide levels. While the unusually low level of sequence variability at these epitope regions can be attributed to the strong structural/functional constraints, it is unclear whether the selective pressure acts uniformly across different associated epitopes. In this study we examined patterns of nucleotide substitutions in epitope regions from HIV-1 genomes sampled worldwide to better understand the molecular evolutionary forces driving sequence changes at epitopes.

Keywords: Epitopes, Hiv-1

20. Prevalence Of Depression And Anxiety Among Us Adolescents: Role Of Body Mass Index

SUNITA SHAKYA, VINAY CHERUVU

College Of Public Health, Kent State University

Adolescent obesity in the United States has increased considerably in recent years and poses a serious risk for mental health, particularly, depression and anxiety. However, the risk for combined depression and anxiety (clinically diagnosed) in adolescents with varying BMI remains unclear. This research seeks to provide new insights in understanding this association in adolescents. Cross-sectional data from the 2007 NSCH were used to estimate the prevalence of clinically diagnosed depression and anxiety (combined) in adolescents (13 to 17 years of age, sample size = 31,001). Multinomial logistic regression modeled the probability of depression and anxiety in relation to BMI. Data were analyzed in 2011 and accounted for the complex sampling design of the NSCH. The prevalence of depression and anxiety was 1.7% (95% Confidence Interval (CI): 1.5 – 2.0). After controlling for all potential confounders, obese adolescents were at a significantly higher risk (Odds Ratio (OR): 1.6, 95% CI: 1.1 – 2.3). These results provide new evidence for a link between obesity and mental health. The transition from overweight to obese may be a time of increased mental health distress and highlight an ideal time for intervention for both body weight and mental health.

Keywords: Body Mass Index, Depression, Anxiety

21. Marital Aggression Among Veterans: Diagnosis & Assessment

ULIA FISHER

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Numerous research studies have revealed that marital aggression among veterans occurs frequently. However, it often goes undetected and untreated due to inadequate diagnostic and assessment practices, leaving veterans susceptible to aggressive behaviors learned while in the military subculture. Studies have shown that veteran violence, and specifically domestic violence, is due largely to a definite set of factors, which are often missed in the assessment process. This research includes an overview of the military subculture to better understand why veterans are more prone to domestic violence, than non-veterans. Specifically, Spillover Theory, household and other stress factors, and post traumatic stress disorder are reviewed. An evidence-based diagnostic tool is recommended, which is specifically designed to identify those factors among veterans which may indicate current aggressive behaviors, or lead to aggression in the future. Knowledge of risk factors for violence among veterans and improved assessment skills may increase the odds for its identification and prevention.

Keywords: Veterans, Aggression, Marriage

22. Counselor Trainee Attachment Style, Perfectionism, And The Working And Supervisory Alliances

ERIN WEST, RANDY MOATE, PHILIP GNILKA, DEBORAH ISAACS, MATT BRANFIELD, KRISTIN BRUNS

Counseling And Human Development Services, Kent State University

The strength of counselor supervisory and working alliances heavily predicts successful client outcomes and professional development of the supervisee (Foster, Lichtenberg, & Peyton, 2007). Two personal factors influencing the strength of supervisory and working alliances are perfectionism (Ganske, 2007) and attachment style (Marmarosh et al., 2009; Riggs & Bretz, 2006). This study examines counselor levels of perfectionism and attachment style, along with the influence of attachment and perfectionism on the counseling supervisory and working alliances. The role of perfectionism as an added predictor variable beyond attachment style has previously been neglected in the research. The two styles of attachment examined for the purposes of this study were secure attachment and avoidant attachment (Bowlby, 1969). Types of perfectionism investigated include adaptive perfectionism, maladaptive perfectionism, and non-perfectionism (Rice & Ashby, 2007). This study examines the dimensions of perfectionism and ways these dimensions explain additional variance above the two attachment styles in the working and supervisory alliances. It also investigates whether adaptive perfectionists have higher levels of working and supervisory alliances compared to non-perfectionists and maladaptive perfectionists. Additionally, this study examines whether adaptive perfectionists have lower levels of attachment anxiety and attachment avoidance than non-perfectionists and maladaptive perfectionists.

Keywords: Counseling, Attachment, Perfectionism

23. The Sagentje Of Berg En Dal

MICHAEL VERES

Department Of Anthropology, Kent State University

Over the course of the summer 2011 field season (May-July) data was collected on the Golden-Handed Tamarin (*Saguinus midas*), in a lowland secondary rain forest in Suriname. Study parameters included daily activity patterns, population density, and group size measurements. Strip-sample census methods were implemented to generate accurate estimates of population size and distribution.

Keywords: Primates Anthropology Ecology

Doctoral Level

24. Using Gis Techniques To Model Early Paleoindian Lithic Supply Zones

AMANDA MULLETT

Department Of Geography, Kent State University

Early Paleoindian mobility is a topic that is frequently covered in eastern North American archaeology. It is well accepted that this colonizing population moved long distances across the continent during the end of the Pleistocene. Early Paleoindians relied on the procurement of high quality lithic raw materials in order to construct large bifacial projectile points that were utilized in the hunting of big game. This hunting and gathering subsistence strategy paired with a transitional climate and environment encouraged the groups to be highly mobile. One of the only stable factors contributing to the environment for early Paleoindians was the location of the raw material outcrops, and the reliability of these select outcrops was essential to their survival. To better understand the land-use decisions made by these hunter-gatherers, I will integrate several different functions supported by Geographic Information Systems (GIS). First, I will estimate the mobility surface of early Paleoindians based on the distribution of particular artifacts around raw material outcrops. I will also use other functions to make distinctions on land-use choices with regards to the physical landscape. Each of the tools that I use will help illustrate a broader portrait on prehistoric mobility.

Keywords: GIS, Archaeology, Mobility

25. Lc-Ms & Lc-Ms/Ms Studies Of Nonionic Surfactants

BRYAN KATZENMEYER

Department Of Chemistry, University Of Akron

Nonionic surfactants are widely used in personal and home care products, in which they may serve as cleaning, wetting, or dispersing agents. Often surfactants are not single compounds but blends of homologous molecules, which complicates their analysis. Coupling of a separation technique, such as liquid chromatography (LC) to mass spectrometry (MS) provides increased sensitivity and specificity compared to LC and MS alone. LC-MS eliminates the drawbacks of the individual methods and creates a very powerful analytical tool for analysis. MS experiments on esterified ethoxylated methyl glucam ethers gave very complex spectra and insufficient information for the characterization of this surfactant. Therefore LC-MS and LC-MS/MS was employed to differentiate and identify the different components in the sample. Oligomers without any fatty acid end groups eluted first due to their higher hydrophilicity. Then glucam and poly(ethylene oxide) (POE) oligomers containing one fatty acid eluted. Lastly, POE/glucam oligomers with two fatty acids and glucam oligomers with three fatty acids followed monoacid products. Using liquid chromatography and accurate mass measurements it was possible to identify isobaric components of esterified ethoxylated methyl glucam ethers owing to the differences in their hydrophilicities, arising from different number of fatty acid ester contents.

Keywords: Surfactants, Liquid-Chromatography, Mass Spectrometry

26. Eight Week Exercise Intervention Improves Physical Fitness In Healthy Elderly And Those With Parkinson's Disease.

COREY PEACOCK

School Of Health Sciences, Kent State University

Parkinson's disease (PD) is a progressive neurological disorder results in impaired neuromuscular function, strength, endurance, and flexibility. Purpose: To determine the effects of an eight week exercise intervention on muscular strength, muscular endurance, cardiovascular fitness, and flexibility in elderly adults with and without PD. Methods: Ten elderly adults with PD and seven age-matched healthy controls participated in 24 exercise sessions over an eight week period. The program included total-body exercise, as recommended by ACSM, including static stretching, multi-joint resistance training using 50-80% of the one-repetition maximum for a total of 8-15 repetitions, and cycle ergometry at moderate intensity. Fitness testing sessions were administered before (Pre) and after (Post) the intervention. Testing sessions included strength, flexibility, and cardiovascular health. Results: Repeated-measures analysis of variance demonstrated a significant ($p \leq 0.002$) improvements in all tests for both groups. Conclusion: Patients with PD tolerated the exercise intervention well and exhibited significant improvements in multiple aspects of fitness that were similar to healthy, elderly controls.

Keywords: Exercise, Parkinson's Disease, Fitness

27. The Effect Of Posture On Energy Expenditure And Postural Preference When Playing Active And Non-Active Video Games

GABRIEL SANDERS

School Of Health Sciences, Kent State University

It is unknown if individuals prefer to play video games seated or standing and what the effect of these postural differences has on energy expenditure. Purpose. To assess energy expenditure (EE) during two different postural conditions (seated, standing) while playing various types of video games. Methods. Oxygen consumption (VO₂) was assessed in 25 adult participants during four 20-minute conditions (split into two separate postural conditions); resting, PS2 Football, Wii Boxing and Wii Football completed in a random order. After completion of each condition, participants indicated their preference of posture. Results. Standing VO₂ ($4.1 \pm 0.7 \text{ ml} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ rest, 4.4 ± 0.2 PS2, 4.6 ± 0.1 Wii Madden, 6.8 ± 0.3 Wii Boxing) was significantly ($p \leq 0.001$) greater than seated VO₂ ($4.0 \pm 0.6 \text{ ml} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ rest, 4.0 ± 0.6 PS2, 4.2 ± 0.1 Wii Madden, 6.1 ± 0.3 Wii Boxing) for the resting and gaming conditions. Participants preferred ($p \leq 0.001$) to stand while playing Wii Boxing but preferred to sit for all other conditions. Conclusion. Playing video games while standing increases EE to a greater extent than playing the same games while seated. Participants preferred to sit for every condition except for Wii Boxing.

Keywords: Video Games, Energy Expenditure, Posture

28. Stress Presence During Sucrose Test Increases Anhedonia In A Chronic Mild Stress Paradigm

JENNIFER REMUS

Department Of Biological Science, Kent State University

Chronic mild stress (CMS) is a popular animal model of depression. Studies have demonstrated that CMS results in a decrease in sucrose preference (anhedonia), exploratory behavior, sexual behavior and disrupted sleep patterns. Some laboratories have had difficulties replicating these findings. A review discussing the reliability of the CMS model have identified potential reasons for these differences including strain of rodent, time of testing, and a masking of the effect due to weight loss. The current study tested whether the presence of a stressor during sucrose testing would alter anhedonia. Fischer rats were exposed to chronic mild stress. On the ninth night of stress, the animals were given a sucrose solution and water for 18 hours. The some stressed animals showed a similar preference for sucrose compared to control animals. However if the same animals were water and food deprived overnight on day 10 and given a one-hour sucrose preference test the following morning, a significant decrease in sucrose preference was observed in all the chronic stress animals. These findings suggest that the length of the sucrose preference test and the presence of a stressor during testing could have a significant impact on sucrose preference.

Keywords: Stress, Depression, Anhedonia

29. Social Defeat Produces Long-Term Changes In Social Behavior And Specific Deficits In Fear Extinction

JEREMY MEDURI, BROOKE DULKA, CHRISTOPHER LEPPLA, SYDNEY TRASK

Department Of Psychology, Kent State University

Currently, post-traumatic stress disorder is thought to be an inability to extinguish fear responses. Whereas many studies examine the basic mechanisms of fear learning and extinction, few studies have examined the effects of prior stress on subsequent emotional learning. Social stress is one of the most prevalent stressors experienced by many animal species, including humans. Thus, the current experiments investigate the effects of acute social defeat on social behavior and subsequent fear learning and extinction. Mice were defeated and were then tested in a social interaction test 24 hours later. We then tested mice in a standard cued-fear conditioning procedure. We demonstrated that acute social defeat produces long-term effects on social behavior 24hr and 30 days following defeat, with no apparent alterations in anxiety-like behavior. In addition, mice that were defeated displayed a specific deficit in fear extinction retention. These data suggest that exposure to social stress produces long-term alterations in fear brain circuits that may contribute to specific deficits in social behavior and fear extinction.

Keywords: Social Defeat, Extinction, Stress

30. Forgetting Of Stimulus Attributes After Adolescent Exposure To Nicotine And Stress

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58 Female Long Evans Rats were used to study the effects of adolescent nicotine exposure via osmotic pumps and stress injections on the forgetting of stimulus attributes. The study used a passive avoidance paradigm in which rats were trained in one context and half were tested 24 hours later in the training context or in a novel context. The context shift effect was observed in the control animals. Animals receiving stress injections, regardless of nicotine exposure, exhibited higher rates of fear generalization than controls as revealed by taking longer to cross into the black chamber and spending more of the total test time in the white compartment when in a novel context. The rats receiving only nicotine also exhibited higher fear generalization than controls but also did not exhibit as much fear when tested in the training context. These results suggest that both adolescent nicotine exposure and adolescent stress induced by injections results in the forgetting of stimulus attributes and a greater generalization of fear when tested in a novel context.

Keywords: Context, Nicotine, Stress

31. Predictors Of Rotavirus Vaccination In A National Immunization Survey (NIS)

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Background: In the US, 3 million cases of Rotavirus infection occurs annually sending 1 in 7 children under 5 to the ER for gastroenteritis. Though the Rotavirus vaccine has reduced the incidence of ER visits and hospitalizations by 94% and 96%, respectively, it is important to identify the factors influencing vaccination to further reduce transmission rates. The CDC recommends continued surveillance to determine the effects of Rotavirus vaccine on transmission. The objective of this study is to identify those factors that influence Rotavirus vaccination. Methods: To understand the predictors for receiving the Rotavirus vaccine nationally, the NIS 2009 data were analyzed. Logistic regression analysis was performed to model the probability of receiving the vaccine. Results: Children with health insurance ($p=0.0054$), with a hospital as their health care provider's facility ($p=0.0283$), and whose parents have higher education ($p=0.0127$) were more likely to have received the vaccine. Discussion: Health insurance is associated with income which impacts the type of insurance and health care provider. Receipt of childhood vaccinations is significantly dependent on health insurance and parent's education attainment. This points to the importance of developing educational strategies for parents among low educated, low income populations for improved access to health care.

Keywords: Rotavirus, Vaccination, Health-Care Access

32. Anti-Her-2/Neu Vaccine

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Human epidermal growth factor receptor-2 (HER-2/neu) is a member of the HER family of receptor tyrosine kinases and is over expressed in approximately 30% of breast cancers. HER-2 has become a preferred target for many vaccine strategies and antibody based drugs. In order to explore novel ...We constructed a peptide library spanning the extracellular domain of HER-2/neu. The library consisted of 62 peptides that overlapped by 10 amino acids. The library was then used to vaccinate Balb/c mice, from which the sera was taken to determine presence of antibody. Peptide recognition was determined first via ELISA. Once peptide recognition was confirmed, we looked for recognition of a synthetic HER-2/neu extracellular domain protein via ELISA, followed by recognition of the native protein via FACS, Western Blot, and Immunocytochemistry. Sera capable of recognizing the native protein was then screened for biological activity via Annexin V and Propidium Iodide staining.

Keywords: Anti-Cancer Vaccine, HER-2/Neu

33. Wt1 Mediated Regulation Of Growth Control Genes In Leukemia

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Prognosis and therapy of acute leukemia is influenced by leukemia-specific genetic alterations, highlighting the importance of markers, such as WT1, the Wilms' tumor gene highly expressed in leukemic blasts and mutated in ~10 percent of leukemias. WT1 functions by regulating gene expression and using real time quantitative PCR (QRTPCR) we have observed WT1 expression, along with JAG1 (Jagged 1) and CCNA1 (Cyclin A), in pediatric leukemia and normal bone marrow. We have identified potential WT1 binding sites and demonstrated WT1 binding to the promoters of both JAG1 and CCNA1 in the chromatin of K562 chronic myeloid leukemia (CML) cells. To identify novel mutations we sequenced WT1 in twelve pediatric acute leukemia samples. We observed a prognostically significant SNP rs 16754 in exon 7. We also created a truncation mutant of isoform A-WT1 lacking the ZF domain and assessed its function in K562 chronic myeloid leukemia (CML) cells. Using QRTPCR we showed that over-expression of wild type WT1 increased JAG1 and CCNA1 expression. However, mutant WT1 did not upregulate JAG1 or CCNA1. These studies suggest that WT1 mutations associated with leukemia render it non-functional and that expression of wild-type WT1 is a poor prognosis.

Keywords: WT1, JAG1, CCNA1

34. Glioma Stem Cells Stimulate The Motility Of Brain Endothelial Cells: Identification Of Cell-Adhesion Molecules Mediating Motility And Direct Interaction

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Angiogenesis, the creation of new blood vessels, is a prominent characteristic of malignant glioma. Glioma stem cells (GSCs) reside adjacent to blood vessels in the perivascular niche, and recent evidence suggests a role for GSCs in promoting angiogenesis. Here we examined the interplay between GSCs and endothelial cells (ECs) on a laminin substrate, and the potential for GSC promotion of EC motility. We found that GSCs dramatically stimulated EC migration, and ECs also stimulated GSC migration. An antibody to integrin $\alpha 6$ blocked in part the motility of both GSCs and ECs. We also found that GSCs directly interact with ECs; therefore, we investigated which cell-adhesion molecules mediated the interaction. In a cell-cell binding assay, blocking antibodies to both the neuronal cell adhesion molecule L1CAM and integrin $\alpha \beta 3$ inhibited in part the direct contact between GSCs and ECs. In the motility assay, the combination of antibodies to L1CAM and $\alpha \beta 3$ significantly inhibited the motility and interaction of both cell types. These data suggest GSCs can promote angiogenesis by promoting EC migration, and indicate a role for the cell-adhesion receptors L1CAM and $\alpha \beta 3$ in the direct interaction between GSCs and ECs that may promote EC motility.

Keywords: Glioma, Angiogenesis, Endothelial/Stem Cells

35. Livelihoods Of Fishers In Kutubdia Island, Bangladesh; A Pilot Study

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Bangladesh is one of the victims of Global Climate Change as well as a disaster prone country because of its Geographical location. Fishers in Bangladesh are highly marginalized in terms of their socio-economic status. Every year hundreds of fishers are missing during their fishing trips at the Bay of Bengal. To understand the livelihoods of fishers a pilot study was conducted for a dissertation research in Kutubdia Island, Bangladesh in the last summer (May 8th , 2011 to July 8th , 2011). The purpose of this study was to understand the livelihoods of fishers in Kutubdia Island, Bangladesh. In situ observation of the fishers and fishing communities and the environment they live was closely examined during this pilot study. I was able to meet about 30 fishing families to conduct this pilot study and out of these 30 families about 22 families reported that they are missing their family member who went to their regular fishing trip in the sea and did not come back. After missing the only earning member of their family the remaining family members face enormous economic drawback and multiple challenges on their livelihoods that add more threats on the livelihoods of fishing communities.

Keywords: Livelihoods, Fishers, Kutubdiaisland

36. Haitian National Identity: In Place/Out Of Place In The Dominican Republic

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Participant observations and narratives aim to produce new knowledge regarding some social or cultural phenomena. This paper transcends traditional sporting imaginations of the Dominican Republic by exploring Haitian national identity from the perspective of a volunteer tourist and football participant. Although football first arrived to the Dominican Republic prior to World War II, the game's influence increased as Haitians moved across the national border that divides the island of Hispaniola. To (re)imagine the Dominican Republic, this work considers Haitian national identity and Haitian peoples' passion for football. For Haitians, football distracts participants from feared social inequalities, while a football field gives them presence, belonging, and a sense of being in place. Many Haitians reference football as their connection with home—and this connection unites the community. Conceptually, this work engages with notions of staging and performing identity to identify and acknowledge themes relative to being the other and out of place.

Keywords: Identity, Haitians, Place

37. Exploring Photogeneration And Transport In A Smectic Semiconductor Using Detailed Analysis Of Time-Of-Flight Transients

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The smectic B phase of the liquid crystalline organic semiconductor 2-(4'-octylphenyl)-6-dodecyloxynaphthalene (8PNP012) have been investigated by using the time of flight (TOF) technique as a function of light intensity, electric field, and wavelength. Using a comprehensive transport simulation as well as analytical calculations, we use the detailed shapes of the TOF transients to probe charge generation and transport.

Keywords: Liquid Crystalline Semiconductor, Photogeneration, Charge Transport

38. Do We Practice What We Preach?: A Comparative Analysis Of Wellness Levels Between Doctoral Students In Counselor Education And Doctoral Students In Other Fields

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Promoting counselor wellness is often a point of emphasis in counselor education programs. However, it is unclear to what extent counselor educators and students are successful at incorporating wellness into their own lives. This proposal will explore how effective counselor educators and students are at implementing wellness into their own lives. This presentation will consist of three segments. First, theoretical concepts of stress and perfectionism will be briefly explained to the audience. Second, results from the study will be presented and used to highlight general implications for counseling educators, counseling education students, and counseling education programs. The third segment of this presentation is intended to stimulate an interactive discussion with members of the audience. This presentation's primary objective is to challenge audience members to become more familiar with stress, and encourage personal reflection on how stress affects one's professional practices and lifestyle.

Keywords: Stress, Doctoral Students, Wellness

39. Organization And Lipid Interaction Of The Model Amphipathic A-Helix Bundle Protein ApoLp-Iii

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Amphipathic α -helix bundle domains are found in many proteins responsible for neutral lipid transport and storage. Important examples are found in apoE, the perlipins, and the representative exchangeable apolipoprotein apoLp-III. Here we characterized the organization and lipid interaction of apoLp-III in Langmuir monolayers modeling the phospholipid monolayer surrounding the neutral lipid particle, i.e. lipoprotein. Surface-sensitive X-ray techniques showed that apoLp-III is partially unfolded at the interface as the unfolded protein was best represented by two distinct regions. This surprising result does not result from the high degree of glycosylation of apoLp-III as the recombinant protein behaved in a similar fashion. This suggests that either apoLp-III is partially unfolded or that unfolded protein is associated with the monolayer. Injection of apoLp-III underneath a previously formed (phospho)-lipid monolayer results in a rapid increase of the surface pressure. We characterized this increase in pressure as a function of effective lipid molecular shape and lipid packing density. These results should shed important light on the interaction of amphipathic α -helix bundle domains with phospholipid monolayers. This work will be extended in the future to include additional apolipo- and lipid droplet proteins containing amphipathic α -helix bundle domains.

Keywords: Apolipoprotein III, Langmuir Monolayers, Lipoprotein

40. The Legitimation Of Mixed Martial Arts: A Case Study In Sanctioning And Legalization.

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Mixed Martial Arts (MMA) is a new phenomenon in American society. The first organized MMA event, the Ultimate Fighting Championship (UFC), was held in 1993. The early days of the UFC were billed as "The most violent event of the decade" and "no-holds-barred." With few rules and the emphasis on violence in advertising and in fact, the sport was quickly stigmatized as "human cockfighting" (Senator John McCain) and illegalized in all states with a State Athletic/Boxing Commission. Additional rules and a focus on fighter safety have since led to sanctioning by most states over the past decade. With sanctioning also brought millions of dollars of revenue to venues, fighters, media outlets, the owners of the UFC, and local governments. This Case Study provides a timeline for the ongoing legitimation of MMA through legal sanctioning. Cultural, political, legal, and economic factors as well as violence and fighter safety are considered.

Keywords: Legitimation, Legalization, Sports

41. Mass-Scale Mapping Of Drumlins Using Automatically Extracted Drumlin Orientation

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A drumlin can be loosely defined as an oval-shaped hill, largely composed of glacial drift, formed beneath an ice sheet and aligned in the direction of ice flow. They tend to exist as swarms and within a swarm they display a similar long-axis orientation. Drumlins of Chautauqua drumlin field are oriented from NNW to SSE. This paper explains how drumlins are mapped by identifying their orientations. Drumlins of the study area have three parts: east-side slope, west-side slope and flat Mid-Ridges. Among these drumlin parts mid-ridges play a key factor identifying drumlin orientation. In this research an automated method was developed to extract drumlin mid-ridges of entire Chautauqua field. Definiens Developer (v.7) was used to perform multiresolution segmentation, followed by rule-based classification in order to extract drumlin mid-ridges. The drumlin field covers an extensive area (2500 sqkm of area) and contains hundreds of drumlins. The proposed method has made large-scale mapping of drumlins easier and quicker.

Keywords: Drumlin, Recognition, Automated Extraction

42. Examining Associated Correlates Of Alcohol Use And Eating Behavior

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Given the comorbidity between eating disorders and alcohol use disorders (Gadalla & Piran, 2007), this study sought to examine associated correlates of alcohol use and eating behavior. Participants (N = 50) completed surveys about their alcohol use, impulsivity, self-regulation, alcohol-related consequences, dietary restraint, and exercise. Participants were predominantly Caucasian (n = 45), followed by African American (n = 4), Pacific Islander (n = 1), and one participant did not indicate their ethnicity. The average age was 20.1 years (SD = 2.42); the average BMI was 23.9 (SD = 5.15); the average BAC was .06 (SD = .06); the average drinks consumed in a week was 11.0 (SD = 8.86); the average impulsivity was 67.6 (SD = 6.80); the average self-regulation was 109.5 (SD = 17.93); the average number of alcohol-related consequences was 5.65 (SD = 5.74); the average dietary restraint was 15.4 (SD = 5.92); and the average time spent exercising in hours was 46.1 (SD = 53.92). Limitations and future directions will be discussed.

Keywords: Alcohol Use; Dietary Restraint; College Women

43. Liquid-Air Interface Instability Due To An In-Plane Electric Field

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We report observations of an unusual instability at the free surface of a liquid due to an in-plane electric field. The horizontal air-liquid interface in a partially filled sample cell between vertical electrodes exhibited first oscillations, then increasingly turbulent fluctuations as the strength of the horizontal electric field was increased. This behavior was observed in toluene and chloroform; the applied AC field was sinusoidal with $f=60$ Hz. The dynamics of the interface was probed via dynamic light scattering. We present our experimental observations, as well as a simple model and numerical simulations of the interface dynamics under the influence of the applied electric field.

Keywords: Instability, Liquid Crystals

44. What Did You Do To My Brand? Consumer Responses To Changes In Brands Towards Which They Are Nostalgic

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This paper seeks to extend the literature on nostalgia by examining consumer responses to changes in brands towards which they feel nostalgic. To accomplish this, we develop and measure a new construct, Nostalgia Towards the Brand, defined as an individual's positive affect towards a brand due to the brand's associations with the individual's lived past. We examine consumers' responses to changes to a brand, and find that individuals who are nostalgic towards the brand have a smaller latitude of acceptance for changes to the brand than individuals who are not nostalgic to the brand. The smaller latitude of acceptance leads more nostalgic individuals to reject changes that are assimilated or even seen as improvements by less nostalgic individuals. Two studies were conducted, the first with brands that have experienced real change and the second with manipulated changes to a single brand. Across both studies, subjects who were highly nostalgic towards the brand showed more positive affect and attitudes toward small and moderate changes to the brand, but showed a significantly greater drop in their affect and attitudes when the change to the brand was large, when compared to individuals in the moderate and low nostalgia groups.

Keywords: Nostalgia, Assimilation/Contrast, Latitude of Acceptance, Memory Bias

45. Propofol Causes Vasodilation Via TRPA1/TRPV1 Dependent Pathway

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TRPA1 and TRPV1 are non-selective cation channels which are activated by wide-range of agonists. TRPA1 is covalently activated by reactive compounds such as allyl isothiocyanate, cinnamon oil, garlic and acrolein and non-covalently activated by compounds including icilin, thymol and the intravenous anesthetic, propofol. TRPV1 is activated by stimuli including capsaicin, noxious heat and protons. Though we know that both these channels play major role in pain/inflammation, but recent studies also implicate their role in modulating vascular tone. Propofol, an intravenous anesthetic causes severe hypotension in patients. Our main objective of this study was to determine the role of TRPA1 and TRPV1 in propofol induced vasodilation. Propofol (1-20 μ g/kg) mediated a dose-dependent depressor response in C57BL6 mice and TRPV1^{-/-} mice which was significantly blunted by TRPA1 inhibition (HC-030031, 60 mg/kg). L-NAME (40 μ g/kg), a nitric oxide synthase inhibitor when used along with A1 antagonist in TRPV1^{-/-} mice further attenuated the depressor response. Penitrem A (50 μ g/kg), a specific BK channel inhibitor also attenuated the depressor response in C57BL6 mice. Isometric-tension studies also shows an endothelium-dependent factor in propofol-mediated vasodilation. These data thus, could provide insight allowing for the reduction of anesthesia-related, post-operative side effects which might be especially beneficial to 'at risk' patient groups, such as those suffering from diabetes and hypotension.

Keywords: TRPA1, TRPV1, Isometric-Tension Studies

46. Whats in the Words?

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Children with Autism Spectrum Disorders (ASD) have communication deficits and needs that are impacted by the individual's unique home and school environments. The primary purpose of this study was to better understand the language environments of young children with ASD by exploring the characteristics of school and home language environments, the differences in language environments between verbal and non-verbal children with ASD, and the utility of two technologies, LENA™ and SALT, used to analyze aspects of the language environments of young children with ASD. Participants for the study included 12 preschool-aged children with ASD, including 7 verbal and 5 non-verbal children, from 3 different programs serving young children with ASD in northeast Ohio. Although many of the findings were consistent with current research in the area of language development of children with ASD, some differences were noted, such as the prevalence of adult-direct language activities in both home and school environments. The findings of the study have implications for school based programs for children with ASD as well as for the benefits of integrating technologies to analyze a child's language for use in the clinical setting.

Keywords: Language Environment, Autism Spectrum Disorders, SALT transcription, LENA

47. Dissecting The Link Between Community Composition And Function In The Laboratory: Denitrification In Pure And Mixed Cultures

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Denitrification provides an important ecosystem service via removal of excess bioavailable nitrogen. On the other hand, intermediates released during denitrification—nitrite, nitric oxide, and nitrous oxide—detract from this service. This has led to efforts to model, and measure experimentally, conditions that regulate denitrification rates and production of intermediates. Field studies that have attempted to link denitrifier community structure and production of denitrification end products have yielded mixed results. The purpose of this study was to examine the relationship between specific denitrifiers and denitrification reaction kinetics, which in turn regulates accumulation of end products. To address interactions among denitrifiers, responses were examined in mono-cultures and compared to mixed cultures. These results imply that although the 2 isolates displayed different denitrification and nitrous oxide accumulation rates, the mixture seemed to reflect the denitrification rate of the more robust denitrifier isolate. Therefore, the mixture did not appear to have interaction effects that either negatively or positively influenced denitrification rate. However, more work needs to be done to quantify other denitrification intermediates (NO_2^- and NO_3^-) and the number of cells of each isolate in culture. This information will shed light on the influence of isolate interactions on denitrification kinetics.

Keywords: Denitrification, Community Composition, Enzyme Kinetics

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