

Abstracts for Funded FSA Projects – FY24

Baniya, Babu Kaji, CSIS, LAS

FSA: Malware Characterization and Classification Using Majority Voting

The Internet is increasingly ubiquitous, and a critical component for connecting and performing daily activities. According to the International Telecommunication Union (ITU) report, approximately 5.3 billion people (i.e., 66% of the world population) are using the internet in 2022. This number (5.3 billion) reflects the coverage of the internet in the world population and its usefulness in our everyday activities. We are extensively relying on the internet to get different services such as instant communication, e-banking, e-commerce, online social security system (access), medical report, education, entertainment, weather updates, traffic monitoring system, online survey, and many other areas. This is an open platform for all and some users connected this virtual world with malicious intentions. They always try to find vulnerabilities to get the credentials of legitimate users (from particular service provider web) and critical information for their financial benefit.

Deshwal, Anant, BIO, LAS

FSA: Connecting Conservation Efforts in Illinois to Grizzly Bear Conservation in Rockies.

Fall Army Cutworm Moths epitomizes the ongoing conflict between the agricultural community and the conservation biologists. This moth is a major pest in the Midwestern US, with pesticides dedicated to it. Conversely, millions of these moths migrate to the Rockies, providing the Grizzly bears with 50% of their yearly energy requirement in 30 days. Climate Change has made these moths critical for the survival of the Grizzly Bears. However, our understanding of the breeding and foraging habitat preference by moths in the Midwestern plains of the US is relatively poor, despite the vital role of these moths both in ecology and as pests. Through this study, I aim to quantify the habitat preference of the adult and larval moths - prairies or agricultural fields. Preference for prairies by moths suggests that a prairie's presence can help mitigate the negative impact of these moths on agriculture. PEG will help me collect preliminary data for the competitive Level II National Geographic Grant.

Esken, Candace, M L, FCB

FSA: Assessing employee perceptions of meaningfulness and turnover intentions in the healthcare field

The purpose of this study is to assess various employee attitudes and perceptions in the healthcare field to better understand the factors associated with the current staffing shortage in the healthcare industry. The study will include feedback from both patient-facing and nonpatient-facing employees in the healthcare field. This study is significant because it addresses a pervasive issue that affects the entire American population who receives any type of healthcare. The healthcare staffing shortage not only threatens the average person's ability to receive quality, attentive healthcare but also places a considerable strain on the remaining healthcare workers who are left to pick up the slack. The significant increase in turnover is worth assessing to identify specific actions that can be taken by management in healthcare organizations to mitigate these issues related to burnout and turnover intentions.

Faulkner, Melinda, BIO, LAS

FSA: Characterizing the function, regulation, and substrate specificity of three stress response proteins

Organisms that live in oxygen-rich environments generate toxic molecules such as peroxides. Our immune systems generate similar toxins to combat bacterial infections. These molecules can severely damage cells; therefore, all cells must sense and respond to these molecules to survive. The bacterium *Bacillus subtilis* produces nine enzymes that degrade peroxides and other similar toxic molecules; three of these are alkylhydroperoxide reductase A, thiol peroxidase, and bacterioferritin comigratory protein. I seek to investigate the substrates of these enzymes, factors controlling their production, and their role in oxidative stress. This information will help us to better understand the unique function of each of these enzymes in defending bacteria against toxic molecules. Since similar enzymes and antioxidant defense systems are found in all cells, both bacterial and human, these studies will contribute to the understanding of how all cells sense and respond to stressful conditions.

Abstracts for Funded FSA Projects – FY24 (Cont.)

Kregel, Steven, CHM/BIO, LAS

FSA: Construction of a Cryogenic Ion Trap to Enable High-Resolution Spectroscopy of Gas-Phase Anions

The acquisition of high-resolution spectra is important for discerning the structure of molecular systems. When spectroscopically characterizing molecular systems, it is important to ensure that all of the molecules in the sample initially reside in the same quantum state, a goal which is realized when the molecules are cooled to cryogenic temperatures. This work will focus on the construction of a cryogenic ion trap to augment the capabilities of our custom-built electron photo-detachment spectrometer. This cryogenic ion trap will enable us to cool gas phase ions to -196°C prior to spectroscopic investigation, and enable the acquisition of high-resolution spectra to facilitate molecular investigations. The ion trap system will be constructed by a team of Bradley undergraduate students, and will be initially utilized to spectroscopically investigate the structure of molecules thought to exist in the interstellar medium, and provide reference data to assist in locating them.

Li, Ye, IME, EGT

FSA: Liquid Metal Droplet 3D Printing with Magnetic Field Guidance

In space-based Additive Manufacturing, the absence of gravity hinders conventional methods. This research proposes a novel approach by employing a magnetic field in an extrusion-based 3D printer, enabling direct printing with liquid metal. Using charged metal filaments, multi-directional printing is made possible without supports. Objectives include successful liquid metal 3D printing and demonstrating magnetic field control over droplet trajectories, potentially eliminating the need for traditional supports. Integrated student engagement aligns with Bradley University's curriculum, offering hands-on experience in diverse engineering domains. The project also seeks to develop a cost-effective metal extrusion-based 3D printer, benefiting Small and Mid-sized Manufacturers with an economical option for metal 3D printing. Success promises to transform space-based production, advancing technology, fostering student engagement, and providing accessible and cost-effective metal 3D printing.

Marino, John, BIO, LAS

FSA: Investigating the Joint Effects of Elevated Carbon Dioxide and Parasitism

Wildlife experience multiple stressors, such as pollution and parasitism, which strongly influence their health. One critical aspect of wildlife health that may be affected by stressors is the microbiome, the community of bacteria with which animals live in close association. This project will evaluate effects of two major stressors, elevated carbon dioxide concentrations and parasitism, on the microbiomes of an important group of wildlife, amphibians. We will quantify the skin microbiome of bullfrog (*Rana catesbeiana*) tadpoles experimentally exposed to either ambient or elevated carbon dioxide and either the presence or absence of trematode (flatworm) parasites. We predict that both factors will significantly influence microbiome diversity and composition. Findings will have implications for understanding impacts of these stressors on wildlife health, which will be valuable for managers seeking to enhance conservation of amphibians, one of the most threatened groups of wildlife.

Marsh, Christopher, COM, CFA

FSA: An Investigation into the Role of Organ Anthropomorphism in Direct-to-Consumer Prescription Drug Ads

This project investigates the effectiveness of organ anthropomorphism (i.e., the attribution of humanlike qualities to bodily organs) in direct-to-consumer advertising (DTCA) of prescription drugs. Specifically, this project aims to explore 1) the potential impact of organ anthropomorphism on consumer health and advertising-related persuasion outcomes, 2) the boundary conditions (i.e., individual difference factors) of organ anthropomorphism, as well as 3) the underlying psychological mechanism through which organ anthropomorphism exerts its influence. Findings of this project will offer important theoretical and practical implications regarding the strategic use of organ anthropomorphism in DTCA.

Abstracts for Funded FSA Projects – FY24 (Cont.)

McBee Orzulak, Melinda, ENG, LAS

FSA: English Teacher Resilience and Professional Identity Formation

This project expands scholarship focused on English teacher resilience by providing research into professional identity formation and how stories of resilience factor into these identities. Exploring teachers' learning trajectories across time, this project further contributes to post-pandemic retention efforts. With its timely focus on resilience, this project provides opportunities for future community collaborations while expanding current research to inform coursework and professional development.

Funding for the project allows for key contributions to the overall discipline of English Education and expands past work focusing on teachers' learning trajectories. The project also builds on existing university-secondary school collaborations, thus raising Bradley's visibility and contributions in the Peoria area. Funding for this project offers the added benefits of supporting undergraduate research and providing a foundation on which to pursue external grants.

McConnaughay, Kelly, BIO, LAS

FSA: Proof of Concept for In-House Metagenomic Analysis of Microbiome Samples

We propose a proof of concept (POC) study to determine whether we can reliably assay microbial community composition from environmental samples using our iSeq. We will examine three different environmental substrates that are of significant interest, ecologically or to human health. Identical (replicate) samples of each substrate type will be either be assayed fully in-house or will be submitted to an external vendor at various stages of in-house processing, from fully unprocessed (i.e., raw samples) to more fully processed (e.g., in-house DNA isolation and/or amplification). We will validate our in-house assays by comparing our results to those obtained from an external vendor. In addition, we will assess the relative financial costs, preparation time, and student learning outcomes for in-house vs externally processed approaches. This project will significantly enhance the research capabilities of the faculty involved, and enable cutting edge research training through our curriculum.

McQuerry, Claire, ENG, LAS

FSA: Documentary Poetry About Mountain Meadows Massacre

Documentary poetics is a mode of poetic writing that responds to historical events by merging research with imagination. This proposed project would result in a book-length work of documentary poetry on the topic of the Mountain Meadows Massacre, an event that occurred in Utah Territory in 1857, involving the murders of 120 members of the Baker-Fancher wagon train by the Mormon-Utah Territorial Militia. This project will especially focus on underrepresented voices, those impacted by the event whose particular narratives are absent from the historical record, especially women and the Native Americans who were originally, wrongly blamed for the killings. Archival research will be foundational to this project, making this an interdisciplinary undertaking.

Sadat, Mohammad, CSIS, LAS

FSA: Information-Aware Low-Latency Automated Video Analytics

Automated video analysis has been extensively used for remote monitoring and detection. Plus, wireless surveillance cameras have reduced deployment costs compared to wired solutions, increased mobility, and facilitated swift installation in temporary settings. However, substantial bandwidth is required to attain acceptable coverage and observation quality due to the significant growth of camera usage and the demand for high-resolution videos, which considerably strains the wireless networking infrastructure. Integrating automated video analysis tools to detect, track objects, and interpret their behaviors provides valuable insights for human operators and improves real-time responsiveness. This proposal explores a new direction of research that will develop an information-driven in-network video analysis framework to maximize the informational yield that human operators can derive from video feeds, which can improve situational awareness, threat assessment, and decision-making.

Abstracts for Funded FSA Projects – FY24 (Cont.)

Scott, Amy, HIS, LAS

FSA: Building the Queer Body Politic: The History of the Gay Games & the Making of Transnational Queer Co

"Building the Queer Body Politic" is an interdisciplinary project located at the intersections of LGBTQ and social movements history, transnational urban history, gender and sexuality studies, and queer studies. My history of the Gay Games-including case studies of Gay Games held in San Francisco, Vancouver, New York, and Amsterdam Games from 1982 to 1998-will examine the ways that LGBTQ activists engaged in local, national, and transnational organizing to introduce new protocols of place at the intersections of gender, sexuality, human rights, and human dignity. I argue that the Gay Games marked the emergence of international LGBTQ urban tourism as a critical political and economic force in the evolution of late-twentieth century LGBTQ rights movements. The Gay Games also provided LGBTQ people with opportunities to redefine the queer body in the wake of the AIDS crisis and constituted a vehicle for building international solidarity for a global human rights movement.

Yang, Qin, CSIS, LAS

FSA: A Bayesian Strategy Network based Reinforcement Learning for Robot Locomotion and Planning

Reinforcement learning is a framework that helps develop self-learning capability in AI agents (like robots), but it is limited to the lower-dimensional problem because of complexity in memory and computation; Deep RL integrates the deep neural network implementing function approximation and representation learning to overcome the limitation of RL. As the most promising algorithm, such as SAC, DRL ideally suits robotic manipulation and locomotion because of no predefined training data requirement. Furthermore, the control policy could be obtained by learning and updating instead of hard-coding directions to coordinate all the joints. This research will develop a novel cognitive robotic model based on BSN and Deep RL architecture to improve the convergent speed and sample efficiency. Furthermore, we will implement our model in a real robot to achieve dynamic and complex tasks.

Abstracts for Funded FSA Projects – FY23

Brammeier, Heather, ART, CFA

FSA: Infinity Maze: Interactive Sculpture that Centers the Mind with Learning through Play

Infinity Maze, an interactive wall-hanging sculpture, engaged tens of thousands of visitors to the Gerald R. Ford Presidential Museum during ArtPrize 2022 in Grand Rapids, Michigan. This test of the prototype showed that while the design functioned well, the 3D-printed barbells (handheld elements that participants slide through the maze) were not strong enough to withstand heavy use. Based on the success of the prototype, I have been invited to design a longer, more horizontal version of Infinity Maze for a museum. While I create new designs for mazes, I must also find a solution for making much stronger barbells. I will be working with a local business, Black Dog Metal Arts, to fabricate the barbells in materials other than plastic. Black Dog Metal Arts will then install the new barbells in the tracks of the large metal sculpture and help me to move and hang the artwork.

Durr, Pamela M, PT, EHS

FSA: The stomatognathic system and differences among gum chewing on function

Parkinson's Disease (PD) affects nearly 10 million people worldwide. The progressive debilitating effects of the disease leaves persons with a decrease in independence and cost to families and healthcare are \$52 billion annually in the US alone. Given the myriad of symptoms including severe movement dysfunction and cognitive changes with loss of independence as a result, there is a clear need to address interventions that lessen the severity and debilitating effects in a manner that provides accessibility and affordability. This study will evaluate the differences among gum chewing on function (including balance, gait and pupillary reaction) in persons with PD. The effects of gum chewing have been studied in healthy persons where positive influence on balance, reaction time and cognition has been found. Results of this study may guide neurorehabilitation approaches as this intervention is practical, may improve overall functional independence and decrease overall healthcare costs.

Abstracts for Funded FSA Projects – FY23 (Cont.)

Estes, Kyle Wayne, PLSIS, LAS

FSA: Public Goods Distribution in the Republic of Georgia's Kvemo Kartli Region

This research will analyze the roles of ethnicity and informal networks in the distribution of public goods in Kvemo Kartli, Georgia, a multiethnic region with a significant Azeri population. The three research sites will be the capital (Tbilisi), Marneuli, and Gardabani. I will conduct elite interviews of local politicians, administrators, and civil society leaders in all research sites. In Marneuli and Gardabani, I will carry out nonelite focus groups and a randomly sampled survey that will include an innovative "list experiment" approach to explore links between ethnicity and the use of "informal networks" to access state resources. This will build on pilot research conducted in Georgia in 2018 and contribute to a book project comparing Kyrgyzstan, Georgia, and Latvia. Broad and equitable access to state institutions and resources is fundamental to improved human development outcomes and, more specifically, a critical determinant of the future political stability of Georgia.

Metzger, Cyle, ART, CFA

FSA: Deep Cuts: Transgender History in American Art after World War II

This project will result in a published book available to the public and scholars alike. It contributes to a growing body of scholarship that puts pressure on feminist and queer discourses in art history, film, performance, and digital media studies, as well as the humanities and humanistic social sciences to disavow limiting-and in a very real sense harmful-inflexible binary logics of male and female genders. As such, the historical commitments that anchor this book do more than bring transgender and gender-transgressive artists and art to light: they implore historians of art to question whether gender across time periods and geographies is as stable as existing scholarship would have it seem. This project also encourages transgender people and scholars to consider aesthetics and practices of making as not just ways of documenting transgender history, but as tools for expanding how we understand the emergence of gender for everyone, trans- and cisgender alike.

Montgomery, Derek E, PSY, LAS

FSA: A meta-analysis of the relationship between theory of mind and reading comprehension in Childhood

The development of children's reading comprehension is undergirded by their capacity to make inferences from causal antecedents that precipitate actions, events, or states in a story. Often, inferences involve taking into account characters' thoughts, motives, and feelings. Theory of mind is the cognitive capacity to reason about mental states and predict behavior based on someone's thoughts and desires. The goal of the proposed study is to conduct a meta-analysis of the research literature that investigates theory of mind-reading comprehension links. A meta-analysis is a quantitative technique that synthesizes the results of multiple studies into an effect size estimate. The meta-analysis will also test for moderator variables that may substantially impact the magnitude of the relation. The results will inform efforts to integrate children's theory of mind skills into instructional efforts aimed at improving children's literacy.

Pavelko, Rachele L, COM, CFA

FSA: Increasing Mental Health Literacy via Mental Illness Anthropomorphism

Mental health literacy refers to knowledge and beliefs about mental illness which aid in their recognition, management, or prevention of such disorders. This project investigates the effectiveness of using anthropomorphism, the attribution of humanlike qualities to nonhuman entities, in decreasing social biases related to mental illness and increasing mental health literacy. Specifically, this project aims to explore whether humanizing depression, imbuing humanlike intentions and characteristics to the disorder, will generate more supportive and understanding attitudes toward people with depression; increase the willingness of people who suffer from depression to engage in help-seeking behaviors; and enhance public efficacy in identifying individuals who suffer from depression. Findings of this project will offer important theoretical and practical implications regarding the strategic use of anthropomorphism in increasing mental health literacy.

Abstracts for Funded FSA Projects – FY23 (Cont.)

Reed, Ryan, PLSIS, LAS

FSA: Intergenerational Justice: Social Contract Solutions

This project focuses on problems of intergenerational justice, which is an area of political theory that considers what is fair between generations, including those that do not yet exist, and why. While there are many competing approaches to addressing intergenerational justice, including utilitarianism, communitarianism, and egalitarianism, there is a particular current debate in the literature as to whether social contract theory, or contractarianism, is capable of comprehensively addressing justice between generations. Nevertheless, I suspect that there is in fact a contractarian route to intergenerational justice, based upon indirect reciprocity. The stakes are high, as many of the most pressing problems faced by the world are intergenerational in nature. Beyond the obvious case of the climate change crisis, in the larger project, issues surrounding education finance, racial justice, and artificial intelligence, among others, will be addressed.

Soltani, Mahmoodreza, CEC, EGT

FSA: Resilience Assessment of Coastal Corrosion-Damaged Concrete Bridges to Extreme Wave-Induced Loads

In recent years, researchers have been concerned with the extreme wave-induced load resilience of concrete bridges susceptible to salt-erosion environments. This study will present a methodology to develop loss estimation for deteriorating reinforced concrete (RC) structures by combining it with a quantitative analysis method. Bivariate inverse-first order reliability method (I-FORM) will be used to simulate post-extreme wave-induced load depending on the extent of damage after a hurricane or flooding. Then, the structural resilience analysis will be performed by combining I-FORM results with a time-varying function. Finally, the resilience assessment calculation of a concrete bridge model will be considered, and the applicability of the research method established in this study will be verified. This research project will present the structural resilience of concrete bridges showing the effect of reinforcement corrosion and structural loss.

Vafaei, Saeid, ME, EGT

FSA: Microfluidics and Nanofluidics: Enhancement of Randomness of Molecules and Nanoparticles

Research in microfluidics and nanofluidics becomes more prevalent in achieving a compact design, as the demand for smaller and more powerful heat removal systems increases. Our initial investigations indicated that adding a connector between two short microchannels (a) provides a higher average heat transfer coefficient compared to a long microchannel, and (b) increases the level of randomness of molecules and nanoparticles, and consequently enhances the heat transfer coefficient. Currently, enhancement of randomness of molecules and nanoparticles in micro scales is the line of nanothermal science. The purpose of this research is to enhance the level of randomness of molecules and nanoparticles, and consequently maximize the heat transfer coefficient in micro scales by designing a connector between two microchannels. The shape and size of the connector will be optimized to maximize the randomness of molecules and nanoparticles. An efficient connector can be used to enhance the thermal management of electronic devices on earth and space. A light, miniaturized, and efficient thermal management plays a significant role in the space technology.

Abstracts for Funded FSA Projects – FY22

G G MD Nawaz Ali, CSIS, LAS

FSA: Enhanced Cooperative Perception for Connected and Autonomous Vehicles

Connected and autonomous vehicle is the emerging technology for the future intelligent transportation system for reducing crashes and saving lives. Such technology enables participating vehicles to actively exchange information about their surrounding traffic. This work proposes for developing a framework for estimating decentralized multi-vehicle cooperative perception where each vehicle broadcasts its perception information and also acts as an individual fusing node for the received data. A covariance intersection-based fusion scheme will be used for yielding a single fused state estimate and covariance matrix for each vehicle. The optimal sub-pattern assignment metric will be used to assess the performance of cooperative perception scheme against other state-of-the-art approaches. The workings of the proposed framework and its potential advantages over other solutions will be demonstrated via an integrated traffic simulator of connected vehicles with different traffic scenarios.

Hogan, Jacqueline L, SSW, LAS

FSA: Advance Bradley: Enhancing Campus Gender Equity through an NSF Advance Grant

Starting in 2017, Bradley's Faculty Gender Equity Task Force analyzed a wealth institutional data, and identified ten main problem areas. The group proposed 40 specific action items to increase gender equity in the faculty ranks. Three years after making those recommendations, the Task Force assessed Bradley's progress toward these goals and found that there was no discernible progress or the situation was worse than before on the remaining on 75% of the recommendations. Bradley now lags considerably behind national averages in gender balance in the academic ranks and the VP or higher ranks, the gender pay gap, and other key metrics. We therefore recommend that Bradley apply for an NSF Advance (Adaptation) grant to facilitate the coordinated implementation of gender equity initiatives on Bradley's campus. An internal grant will give me the support I need (specifically a consultant's expertise) to write the large federal grant, and eventually disseminate research findings.

Nezami, Mehdi, MTG, FCB

FSA: Valuation Effect of Target Firms' Customer Satisfaction in the Pre-Deal Phase of M & As

The main objective of this study is to provide a comprehensive framework that examines the valuation effect of a target firms' customer satisfaction in the pre-deal phase of mergers and acquisitions (M&As). The study makes three important contributions to the extant literature. This study provides the first empirical evidence of the effect of targets customer satisfaction on (a) the initial acquisition premium (i.e., the initial value premium that an acquiring firm places on a target firm beyond its pre-acquisition market valuation), (b) the likelihood of bid competition (i.e., receiving multiple bids from different acquirers), and (c) the likelihood of upward bid revision (i.e., a raise in the initial offered price).

Saleeby, Patricia, SSW, LAS

FSA: Evaluation of Classification and Coding Content in Social Work Education and Practice

Classifications and medical coding are essential aspects in health and mental health systems. Social workers are increasingly employed in these clinical settings. However, social work education lacks educational content addressing classifications and coding. The purpose of this project is to secure data necessary to better understand the situation in social work education and to identify potential educational interventions based on data findings. Project objectives include (1) Evaluating the status of educational content on classification and coding in social work education including the ICD, ICF, BPT and HCPCS; (2) Assessing the value of such content in social work clinical practice; and (3) Identifying potential intervention strategies for preparing social workers in working with these classifications. It is anticipated that the proposed project will help identify and substantiate the perceived gap in social work education and practice for health/mental health social workers.

Abstracts for Funded FSA Projects – FY22 (cont.)

Schaffer, Owen, CSIS, LAS

FSA: Investigating the Impact of Task Significance, Vitality, and Relaxation on Digital Game Enjoyment

An online controlled experiment with 452 total participants is proposed to test the impact of Task Significance, Vitality, and Relaxation on Enjoyment. Participants will play one of 8 versions of a custom research game online (2x2x2 factorial experimental design), and then complete an online survey. Narrative Framing will be used to vary Task Significance by presenting different reasons for player action to the different experimental groups. Gameplay Pacing and Music Tempo will be manipulated to vary Vitality and Relaxation, with faster gameplay and music intended to increase Perceived Vitality and slower gameplay and music intended to increase Relaxation. Game difficulty is controlled with dynamic difficulty adjustment to hold optimal challenge constant. This experiment will advance the study of game enjoyment by testing the effectiveness of these paths to enjoyment in digital games. The results of this study will have important implications for both theory and practice.

Schnupf, Udo, CHM, LAS

FSA, Molecular Dynamics Study The structural and hydration behavior of G-Quadruplexes

Guanine-rich sequences of DNA can fold into four-stranded, ion-stabilized complexes called guanine quadruplexes, or G-Quadruplexes (G4s). These non-Watson-Crick nucleic acid structures are important conformational knots in genes, and are abundant in telomeres, and may play a role in initiating DNA replication and cancer cell proliferation, and thus are potentially important targets for anti-cancer drugs that might interfere with the replication process. The proposed project will use a coordinated combination of various computer simulations to characterize the interactions of water with G4s and the impact that water has on the stability of the G4s. The information gained will provide the scientific community with a deeper understanding of the structural behavior of G4s in their natural environment which is essential for the design of novel anticancer drugs.

Wang, Tianjiao, COM, CFA

FSA: An Investigation into the Content and Influence of Advertising for Mental Health Mobi

Abstract: As mobile health applications (apps) become increasingly influential in daily life, they present an important opportunity for studying communication surrounding mental health. Despite the growing popularity, little research has examined the content of mental health apps advertising and how these messages may affect people's perceptions of mental health issues. To address this gap, this study aims to explore: (1) how popular mental health apps frame mental health and illness, and (2) the influence of messaging in mental health app advertising on young adults' mental health literacy. The proposed research will contribute theoretically a better understanding of the content within popular mental health apps, and also provide knowledge that can guide users and researchers to select apps that encompass the optimal features for future interventions.

Whetstone, Sarah L, SSW, LAS

FSA: Exploring Social Contexts, Cultural Meanings and Diverse Participation in Pole Sports

Since the early 2000s, "pole" in the US has shifted from a marginalized erotic dance into mainstream commercial fitness and professional sports--yet it continues to be stigmatized through historical associations with sex work. This project uses ethnography and in-depth interviews with "pole fitness" participants in Illinois to explore the social contexts, cultural meanings, and diverse forms of participation in contemporary pole. Most studies ask whether pole challenges or reproduces masculine domination, but today's "polers" come to the practice from a variety of backgrounds and motivations--some even using pole to process and heal gender-based trauma. Pole communities are increasingly gender expansive, racially diverse, and inclusive of all ages, abilities, sexualities, and body types. My work examines pole as a complex site of contested meanings with implications for larger questions of bodily autonomy, gendered agency, and collective resistance.