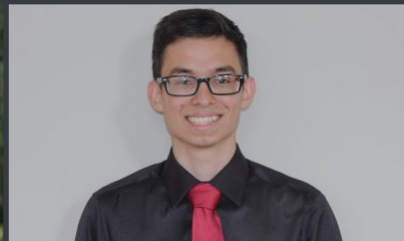
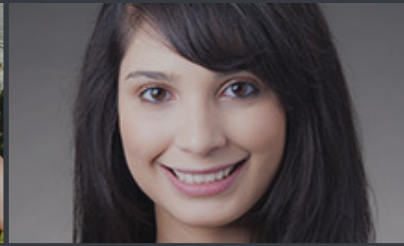


MCNAIR

RONALD E. MCNAIR POST BACCALAUREATE ACHIEVEMENT PROGRAM

THE COLLECTION OF ABSTRACTS OF EWU MCNAIR SCHOLARS



McNair Scholars Abstract Journal

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Ronald E. McNair Postbaccalaureate Achievement Program

Eastern Washington University

107 Monroe Hall

Cheney, WA 99004

Production of this abstract journal was made possible through funding by the U.S. Department of Education.

The McNair Scholars Program is a TRiO Program.

THE STORY OF US

We are a close team of creative professionals at Eastern Washington University. We are passionate about partnering with great people and organizations to provide exceptional paths to successful learning and guiding students to finding the pathways that help them be successful.



WHAT WE DO

The TRiO Ronald McNair Postbaccalaureate Achievement Program at Eastern Washington University prepares low-income, first-generation and/or underrepresented minority undergraduates for success in doctoral programs by providing scholarly activities and community engagement that empowers participants to become agents of positive change in a culturally diverse world.



Christina Torres García, MBA, PhD.

Yes, it is another successful end of the year. We are proud to present our McNair Scholars Collection of Abstracts 2015-2016 in which you will find the culmination of intensive research conducted by our McNair Scholars and faculty mentors throughout the year in our EWU Ronald E. McNair Post-baccalaureate Achievement Programs. This collection does not include the Summer Research Internships experiences and highlights since we will be presenting that through our newsletter. This journal highlights the McNair Scholars' abstract submitted for the EWU Symposium 2016 and re-enforces the alignment of its mission statement with EWU.

Our Faculty Mentors play a key role in the transformation our McNair Scholars. Faculty Research Mentoring is the foundation in which we (Eastern) have supported the success of the Ronald E. McNair Program for 22 years. Since the first EWU McNair grant in 1995, McNair has worked closely with Eastern faculty to build a research centered community where students thrive. Our quest is to continue this partnership with EWU McNair Mentors and extend the transformation of our students.

If you would like to participate, please complete the Inspire the Future with McNair form.

I also want to congratulate the McNair scholars who research is presented here. Your journey of overcoming various challenges during your scholarly endeavors speak to your talents and persistence in pursuing both your educational and life goals.

Finally, thank you to all the people who work behind the scenes to sustain this program, guide students to success, and dedicate time and energy to produce this journal, especially to our McNair Staff.

Christina Torres García, MBA, PhD
Director of the McNair Scholars Program

A SCENARIO BASED APPROACH TO UNDERSTANDING ENVIRONMENTAL LOCUS OF CONTROL



Lisa Coyle

**MCNAIR SCHOLAR
PSYCHOLOGY**

Most research on pro-environmental behavior (PEB) has approached the topic from a linear attitudinal approach model, often assuming attitudinal change to mediate behavioral change (Kollmuss & Ayeman, 2004). The goal of this study was to contribute to a growing body of evidence that suggests situational factors involved in pro-environmental decision-making can often be a greater predictor of PEB (Kalamas, Cleveland, & Laroche, 2014). Individual differences in subject's environmental locus of control were examined after the presentation of five brief scenarios concerning the topic of water scarcity.



**DR. CHARALAMBOS
CLEANTHOUS**

**ASSOCIATE PROFESSOR
DEPARTMENT OF PSYCHOLOGY**

Dr. Charalambos (Charlie) Cleanthous is Associate Psychology Professor. He earned a doctorate in Developmental and Child Psychology from The University of Kansas. His research interests include risk analysis and management using a behavioral systems approach.

TUNING SINGLE-ION ANISOTROPY IN MOLECULAR Ni (II) COORDINATION COMPLEXES CONTAINING IMIDAZOLE AND PYRAZOLE LIGAND TYPES



Samantha De Abreu

**MCNAIR SCHOLAR
CHEMISTRY**

While some molecular Ni(II) coordination complexes containing combinations of halide anions and organic ligands are known, truly systematic studies are lacking and often omit fluoride and iodide derivatives. We are especially interested in near-octahedral trans-coordinated NiN₄X₂ systems where X is F, Cl, Br, I and N is a donor atom belonging to an imidazole- or pyrazole-based ligand. The goal is to create high quality single crystals suitable for detailed structural and magnetic investigation. We aim to better understand the determining factors leading to single-ion anisotropy (D) while eliminating exchange interactions (J). Thus far, we have successfully synthesized several of the desired analogs and portions of this work, including X-ray crystallography, UV-Vis spectroscopy, pulsed-field magnetization, and electron-spin resonance will be presented.



DR. JAMIE MANSON

**PROFESSOR
DEPARTMENT OF CHEMISTRY**

Dr. Jamie Manson is a Professor of Chemistry. Dr. Manson obtained a Ph.D. in chemistry from the University of Utah and was the 2013 recipient of EWU's Trustees' Medal. His work, which feature numerous undergraduate co-authors can be found in nearly 150 peer-reviewed publications. Manson's research involves design, synthesis and detailed characterization of novel molecule-based quantum magnets that present interesting physical properties. Coordination chemistry and the self-assembly of 1-, 2- and 3-dimensional polymeric networks that feature strong hydrogen bonds are the primary systems under study. He conducts x-ray, neutron, and muon as well as high-pressure and high-magnetic field studies of new magnets to better understand structure/property relationships.

AGRICULTURAL WORKERS IN THE WASHINGTON DROUGHT



Mariana Garcia

**MCNAIR SCHOLAR
POLITICAL SCIENCE**

In May of 2015, Washington State Governor Jay Inslee declared a state wide drought emergency. While there is much concern over the drought's effects on agriculture and its impact on the state's economy, not much attention has been given to the possible social impacts the drought may be having on vulnerable populations. My claim is that Latina/o and undocumented communities are being disproportionality affected in comparison to other groups, partly due to socio-economic and minority legal status. By utilizing the environmental justice paradigm as a framework, I will examine the relationship between the Latina/o community, their environment, and the government's response to environmental disasters. This study uses a qualitative approach with interviews from participants working in agriculture in the Yakima Valley, which is one of the most affected areas in Washington State. The Latina/o and undocumented communities make up a large portion of the agricultural labor force in this region. To enrich this study, interviews include individuals working for organizations dedicated to Latina/o water rights, serving as means to investigate how the Latina/o community has been organizing around the water crisis.



**DR. MARTÍN MERÁZ
GARCÍA**

**ASSISTANT PROFESSOR
CHICANO EDUCATION PROGRAM**

Dr. Martín Meráz García is currently an Assistant Professor of Chicano Studies at Eastern Washington University. His research interests include the U.S.-Mexico relations with respect to the war on drugs, drug cartels, as well as revolutionary movements in Nicaragua and other Latin American countries. Meráz García has presented his re-search in various regional, national and international conferences. He has also en-gaged in field research in Nicaragua, as well as in various states in the Pacific North-west including Washington and Oregon. Current publications include "The Psychology and Recruitment Process of the Narco" in the Global Crime Journal and "Cooperation Among the Nicaraguan Sandinista Factions" in the Latin American Policy Journal. As an Eastern TRiO McNair alumnus, he provides valuable insight as a McNair faculty re-search mentor. Dr. Martín Meráz García earned his PhD from Washington State University in Political Science. His book, "Ordinary Individuals Who Become Narcotraffickers," was pub-lished by Kendall Hunt Publishing in 2012.

TRAUMATIC BRAIN INJURY AND SELF-AWARENESS OF COGNITIVE FUNCTIONING



Alla Goleta

**MCNAIR SCHOLAR
PSYCHOLOGY**

The purpose of this study is to examine the impact inpatient rehabilitation has on self-awareness of cognition in individuals with traumatic brain injury (TBI). Self-awareness is often thought to be the conscious knowledge about one's own cognitive functioning. The importance of understanding awareness abilities after a chronic TBI is highlighted by the impact that inaccurate awareness of cognition can have in everyday functions. For example, if an individual is aware that they experience difficulties with attention they can instigate compensatory strategies. Multiple studies have investigated self-awareness of memory (i.e., metamemory; e.g., Schmitter-Edgecombe & Woo, 2004) and other cognitive areas, such as executive functioning (O'Keeffe et al., 2007) in individuals with TBI. However, no study could be found that compared self-awareness of cognition between individuals with TBI who have and have not undergone inpatient rehabilitation.

It is hypothesized that neurologically normal individuals will generate more total words on the verbal fluency task than individuals with TBI. It is also expected that individuals with TBI who underwent inpatient rehabilitation will generate more words than individuals who did not undergo inpatient rehabilitation. Finally, it is predicted that individuals with TBI who underwent inpatient rehabilitation will demonstrate similar levels of cognitive awareness as neurologically normal controls but significantly better levels of awareness than individuals with TBI who did not undergo inpatient rehabilitation.



**DR. JONATHAN W.
ANDERSON**

**ASSOCIATE PROFESSOR
ASSOCIATE DEAN OF THE COLLEGE OF SOCIAL
AND BEHAVIORAL SCIENCES AND SOCIAL WORK
DEPARTMENT OF PSYCHOLOGY**

Dr. Jonathan Anderson is an Associate Dean and Associate Professor of Psychology. Dr. Anderson holds a PhD in clinical psychology with emphasis in neuropsychology from Seattle Pacific University. His research interests include cognitive psychology, traumatic brain injury and time estimation.

FLOCKING, OBSTACLES, AND AGENT BASED MODELING



Anna Kravtsova

**MCNAIR SCHOLAR
COMPUTER SCIENCE**

Flocking is a grouping behavior attributed to animals when they forage or move in cohesion. Flocking can be characterized by a group of animals, composed of self-determining individuals without explicit leadership or guidance, exhibiting what appears to be a directed and controlled collective motion. This phenomenon is referred to as emergent behavior, which is when simple rules followed by individuals give rise to complex group patterns. A common problem flocking animals face is navigating human-made obstacles. Human development has created a landscape that affects the survival rates of wildlife, and the results from this model will lead to better placement of structures with a lessened effect on affected species. When flocks are simulated by a program, simple rules like collision avoidance, alignment, and cohesion can create realistic models of grouping and emergent behavior. An effective way to simulate flocking is by implementing an agent-based model. Agents represent entities that can be programmed to have characteristics like preferences and aversions and can follow simple decision making rules. We are investigating the effect obstacles have on emergent flocking behavior as simulated through agent based models developed specifically for this investigation. The program simulates flocking using agents that have various levels of adherence to rules that the entire flock follows. We found that agents with low adherence to flocking rules create a more diffuse pattern. Various types of obstacles are implemented into the program in order to test their effect on flocking behavior. Agents with high affinities to each other create tight group formations which freely cross obstacles while low affinities result in the agents dispersing and causing difficulty in obstacle traversal. The results will indicate which arrangements of obstacles are better at slowing flocking through an area, thereby suggesting suitable options to protect flocking wildlife.



**DR. KRISZTIAN
MAGORI**

**ASSISTANT PROFESSOR
DEPARTMENT OF BIOLOGY**

Dr. Krisztian Magori is the Assistant Professor of Biostatistics at the Department of Biology. Besides teaching biostatistics, he's interested generally in mathematical and computational biology. He studies the ecology of infectious diseases that are transmitted by insect vectors from an interdisciplinary perspective.



DR. FRANK LYNCH
ASSISTANT PROFESSOR

DEPARTMENT OF MATHEMATICS

Dr. Frank Lynch is an Assistant Professor of Applied Mathematics. He earned his PhD from the University of Utah where he worked with the Mathematical Biology group. His current research interests are in plant physiology and competition in biochemical reactions.

THE ADVERSE NATURE OF WHITENESS CONSTRUCTS ON EASTERN WASHINGTON UNIVERSITY CAMPUS



Ariel McMillan

**MCNAIR SCHOLAR
COMMUNICATIONS STUDIES**

This presentation explores the attitudes and world views of white students and non-white students concerning race at Eastern Washington University. EWU is a predominantly white campus located outside Spokane, Washington. The Cheney campus draws student populations that are more ethnically diverse than the surrounding area which is 86-100% white. After conducting a survey last year about how student's perceived diversity and the racial climate on EWU's campus following a series of racially charged events, it became clear that further investigation of racial attitudes was needed. Focus groups and interviews were conducted by the researcher, whose racial orientation is observationally mixed, and by a white blonde co-researcher with separate participants in order to control for the ways in which students enact filters while being questioned by white and non-white interviewers. As some students do not have the scaffolding for articulating their full world view, the most accessible measure is the common themes discussed with friends and family as well as their concepts of race on campus. Responses were analyzed to further understand the gaps between the experiences and understandings of marginalized groups on campus and those of white students. The research found that white students who lacked constructive or effectual interactions with non-white people had a view of race relations that was more divergent from that of non-white students than those white students who had those interactions. Students reported a lack of comprehensive and cogent classroom facilitation but more importantly a lack of the skill development needed for dialogues and interactions outside of the classroom. Creating specific programs for better awareness of these differences, advocating for the creation of a multicultural center, and ensuring the campus has interculturally qualified institutional leadership will have the greatest impact on the effort to foster greater cultural competency among white students who attend EWU.



DR. JULIA SMITH
PROFESSOR
DEPARTMENT OF ANTHROPOLOGY

Dr. Julia Smith received her MA (on interpreting household archaeology for the Classic Maya) and PhD (on small-scale coffee farmers in southern Costa Rica) from the University of Pittsburgh after receiving bachelor's degree in anthropology from Vanderbilt University. She's done extensive fieldwork in Costa Rica and Mexico, with brief projects in Honduras and Nicaragua. Her recent work has focused on the restructuring of conventional and alternative coffee markets, especially the Fair Trade market.

DEVELOPING A SUPPORT CENTER WITHOUT BORDERS: ENHANCING SERVICES FOR STUDENTS WITHOUT DOCUMENTATION



Edith Melendez

**MCNAIR SCHOLAR
PSYCHOLOGY**

College students without documentation (students) face many academic support hardships. As defined by the National Immigration Law Center, an undocumented person is a foreign national who resides in the United States with fraudulent documents or entered without authorization. Every year hundreds of motivated students with high potential to succeed in an academic setting enroll into four-year university with hopes of becoming upwardly mobile and contributing to society. Unlike college students with authorization, they have added stress and pressures relating to overcoming financial, social, and educational challenges. Despite these obstacles and legal status, they persevere and achieve academic success along educational pipelines. However, many universities in Washington State lack support structures that provide social support, personal development, and support services specifically tailored to college students without documentation. As such, the recommendations outlined in this essay suggests that creating a center will empower students and better support them.



**DR. CHRISTINA
TORRES GARCIA**

**DIRECTOR
MCNAIR SCHOLAR PROGRAM**

Dr. Torres García earned her Ph.D. in Cultural Studies and Social Thought from Washington State University. Currently, she is the Director of the TRiO Ronald E. McNair Post-baccalaureate Achievement Program and has taught in the fields of Chicano Studies, Sociology, Women's and Gender Studies at Eastern Washington University and Chicano Studies at Yakima Valley Community College. Her research interests and studies focus on historical, social, and political issues affecting Chicanas/Latinas in the Pacific Northwest. Her interest in illustrating the dynamic modus operandi of the intersections of systematic layers of oppression has resulted in reclaiming the voices of Chicanas and Latinas whose life stories enrich academia today. As a Chicana from Mexican farm working background and first-generation college student, Dr. Torres García's life dedication is to raise critical consciousness among students by unveiling social inequalities and empowering marginalized groups to become agents of positive change and engage them in civic responsibilities.

LA APPO: SOCIAL ACTIVISM IN OAXACA, 2006-2010



Virginia Morales

**MCNAIR SCHOLAR
INTERNATIONAL AFFAIRS**

On May 22, 2006, teachers from Section 22 of the Mexican National Education Workers' Union (SNTE) occupied the central plaza of Oaxaca city, the capital of the southern Mexican state of Oaxaca. Municipal police, local firefighters, and troops from the Federal Preventative Police (PFP), violently evicted the demonstrators. In response, the Popular Assembly of the Peoples of Oaxaca (APPO) emerged in June, calling for a wide range of political, social, and economic changes. APPO's primary demand was the removal of Governor Ulises Ruiz Ortiz. Their goal was to hold him accountable for the human rights violations committed during his term, and also to address the socio-economic, healthcare, and education problems facing Oaxaca. The aim of this study is to examine the extent to which the movement succeeded as a voice for marginalized people of Oaxaca. Using newspaper articles and oral testimonies collected by the author, this project examines APPO's encounters with the government from 2006 to 2010, when Ulises left office. For the first time in the history of Oaxaca, there was a massive social mobilization that seemed to stem from the people themselves. The question remains, did this social mobilization reflect the voice of the marginalized?



DR. JOSEPH LENTI

**ASSISTANT PROFESSOR
DEPARTMENT OF HISTORY**

Dr. Joseph Lenti is a Professor of History and the coordinator of the Latin American Certificate program. He holds both an M.A. and Ph.D. in Latin American history from the University of New Mexico. Having researched and published previously on state and organized labor relations in 20th century Mexico, Lenti is currently investigating the historical Iberian and Amerindian roots of acarreo, the long-established practice in Mexico of mobilizing marginalized peoples and bringing them in on buses so that they may participate in a demonstration or vote.

ATTITUDES AND MOTIVATIONS OF FIRST-GENERATION SPANISH HERITAGE SPEAKERS



Diana Ocampo

**MCNAIR SCHOLAR
EDUCATION**

This research aimed to discover Spanish Heritage Speakers' attitudes and motivations in regard to studying their heritage language. A heritage speaker is a person who is raised in a home where a language other than the dominant language of the community is spoken, and can therefore communicate at some degree or is somewhat proficient, in the heritage language and the dominant language (Valdés, 2000). Although scholars have noted the differences between Heritage Language Learners and the traditional foreign language learner, the importance of understanding the attitudes and motivations that influence how these two groups study language has often been overlooked. There is a growing trend in higher education of heritage speakers seeking to study their native language. In order to better serve heritage speakers, we need to understand what motivates them to learn, as they are not a homogeneous group. As such, this research focused specifically on first generation Spanish Heritage Speakers in the United States enrolled in Heritage language classes, and was set to discover what specifically motivates them to study their heritage language, as well as explore how this motivation fluctuates from their experience in the classroom. A crucial part of this research was to explore how the attitudes toward the heritage language influenced the students' motivation. Using a questionnaire adapted from Gardner's Attitude Motivation Test Battery (Gardner, 1985), 33 students (20 females and 13 males) enrolled in a Spanish for Heritage Speakers course at a public Northwest college were surveyed in order to further understand their attitudes and motivations. Participants completed surveys that measured their language backgrounds and ethnic identity. A proficiency test for Heritage Speakers was used as a measure of learning success. Statistical analysis showed that first generation Spanish Heritage Speakers were motivated by integrative motivation, rather than instrumental motivation.



DR. MIGUEL NOVELLA

**ASSISTANT PROFESSOR
DEPARTMENT MODERN LANGUAGES +
LITERATURES**

Dr. Miguel Novella is an Assistant Professor of Spanish. He earned his PhD at Georgetown University, and his research interests are implicit/explicit learning of second languages, heritage language learners and second language teaching pedagogy.

¡SEGUN EL DOCTOR!:"MEXICAN AND MEXICAN-AMERICAN MOTHERS' PERCEPTIONS AND ATTITUDES TOWARDS DOMINANT VIEWS OF FOOD, HEALTH, AND CHILDHOOD 'OBESITY'".



Jessica Ochoa

**MCNAIR SCHOLAR
ANTHROPOLOGY**

This research project examined Mexican and Mexican-American mothers' perceptions and attitudes to childhood obesity and what the effect of institutions recommendations, poverty, and migrant status are on these perceptions and attitudes. The purpose of this research was to identify possible factors that contribute to the increasing rate of childhood obesity in the Latina/o population of Yakima, Washington. Information from published sources were supplemented through interviews conducted with Mexican and Mexican-American mothers to identify the social determinants of childhood obesity. I partnered with community based representatives in particular with community members who assisted in recruiting interviewees using a community based participatory research (CBPR) approach, interviewing a total of 10 Mexican and Mexican-American mothers in Yakima, WA. Data was transcribed and analyzed using critical medical anthropology and Chicana feminist approaches. The potential benefit of this research project includes taking action steps in the community as an intervention.



**DR. NORMA
CÁRDENAS**

**LECTURER
CHICANO EDUCATION PROGRAM**

Dr. Norma Cárdenas is a Lecturer in Chicano Studies. She holds a PhD in Culture, Literacy, and Language from the University of Texas at San Antonio, where she was an HLPANR fellow. Her interdisciplinary research and teaching interests are in Chicano-Latino cultural studies, Chicana feminisms, and food studies. She is currently working on a book titled Forgetting Tex-Mex: Food Representations in San Antonio's Culinary Borderlands.

LONG TERM EFFECTS OF CHILDHOOD TRAUMA ON SHOPPING BEHAVIOR



Raquel Ramos

**MCNAIR SCHOLAR
PSYCHOLOGY**

A recent empirical study points to a rise in compulsive buying, solidifying the need for more research to address developmental factors, type of trauma, and treatment of trauma-specific OCD like compulsive buying. The purpose is to expand the understanding of the physical, psychological, and emotional distress associated with childhood trauma and how it's related to development of compulsive buying behavior. The sample included six individuals who self-identify with any obsessive-compulsive and/or addictive behaviors. During the interviews, participants completed a series of questionnaires to measure aspects of post-traumatic stress, self-worth, and the severity of demonstrated compulsive-buying behaviors to determine which type(s) of trauma is most closely associated with the development of compulsive buying behavior. Initial analysis indicates trauma resulting in low self-esteem, anxiety, depression, and hyperarousal might influence compulsive buying behaviors.



DR. DEANNA TRELLA
**ASSISTANT PROFESSOR
SOCIOLOGY**

Dr. Deanna Trella is an Assistant Professor of Children's Studies and the Director of the Children's Studies Program. She received her MA (Social Psychology) and PhD (Family Sociology) from Bowling Green State University. Her primary area of research concerns family and child homelessness.

MOTIVATIONS FOR ACADEMIC ACHIEVEMENT FROM LATINA/O UNDERGRADUATES



Jose Razo

**MCNAIR SCHOLAR
EDUCATION**

Abstract Latina/o college students are at the center of discussion regarding a growing concern over retention rates; extensive research has been conducted, highlighting institutional and social factors that influence student motivation to continue their education. The Chronicles of Education has produced studies demonstrating a clear parallel between K-12 dropout rates and retention rates at four year universities. It is important to examine the institutional incentives for improving motivational patterns for academic achievement through a pedagogical lens so that educators may better assist Latina/o college students throughout their preliminary undergraduate studies. The purpose of this research is to identify how Latina/o college students are motivated to attain academic achievement. Through a pedagogical lens utilizing Critical Race Theory, this study focuses on assessing the institutional factors that motivate a Latina/o student to persist through their undergraduate academics. The methods of this research consist of in-depth interviews utilizing a ten category questionnaire with twenty individuals. The research involves identifying and assessing resiliency factors among Latina/o students in college. The interviews seek to identify explicit elements that may influence students' motivation and promote academic achievement. This research seeks to improve the approach by academic institutions in reaching Latina/o college students, cultivating stronger relationships between students and institutional spheres.



**DR. MARTÍN MERÁZ
GARCÍA**

**ASSISTANT PROFESSOR
CHICANO EDUCATION PROGRAM**

Dr. Martín Meráz García is currently an Assistant Professor of Chicano Studies at Eastern Washington University. His research interests include the U.S.-Mexico relations with respect to the war on drugs, drug cartels, as well as revolutionary movements in Nicaragua and other Latin American countries. Meráz García has presented his re-search in various regional, national and international conferences. He has also en-gaged in field research in Nicaragua, as well as in various states in the Pacific North-west including Washington and Oregon. Current publications include "The Psychology and Recruitment Process of the Narco" in the Global Crime Journal and "Cooperation Among the Nicaraguan Sandinista Factions" in the Latin American Policy Journal. As an Eastern TRiO McNair alumnus, he provides valuable insight as a McNair faculty re-search mentor. Dr. Martín Meráz García earned his PhD from Washington State University in Political Science. His book, "Ordinary Individuals Who Become Narcotraffickers," was pub-lished by Kendall Hunt Publishing in 2012.

A RE-DESCRIPTION OF A BASAL DEINONYCHOSAUR FROM THE EARLY MAASTRICHTIAN OF JAMES ROSS ISLAND, ANTARCTICA

We offer a re-description of an early Maastrichtian, gigantic, basal deinonychosaur from James Ross Island, Antarctica. In 2004, researchers found the remains of a theropod previously referred to Dromaeosauridae, a clade which includes Velociraptor and Deinonychus. Referral to this clade is not supported in our phylogenetic analysis due to certain aberrant morphological features. Turner et al. (2012) notes the lack of a distal, ginglymoid articulation of metatarsal II signifies a placement at least within Deinonychosauria, but not Dromaeosauridae. The specimen also lacks an enlarged ungual of the second pedal digit. Our phylogenetic analysis reveals this theropod to be the basalmost deinonychosaur, a sister taxon to the clade Troodontidae+Dromaeosauridae. However, bootstrapping supports a trichotomy of this theropod, Troodontidae, and Dromaeosauridae with 77% of bootstrapping replicates. We also offer the first biostratigraphic placement of most Campanian-Maastrichtian, non-avian Antarctic dinosaurs and can determine the contemporaneous dinosaur fauna of this theropod.



Ricardo Ely

**MCNAIR SCHOLAR
BIOLOGY/GEOLOGY**



DR. JUDD CASE
DEAN, SCIENCE HEALTH + ENGINEERING

OPEC VS NON-OPEC: THE CURRENT ESTATE OF THE OIL MARKET

Due to the excessive output of oil in the market, oil prices have fallen from \$110 a barrel, Mid-June 2014, to less than \$40 a barrel. The fall of oil prices has greatly affected the economy of the Organization of Exporting Countries (OPEC) members and non-OPEC nations. This case study evaluates the history of OPEC, which held enormous power of stability in the market, and how the monopoly OPEC once had in the oil market is now being challenged by Non-OPEC nations. A Singer theoretic perspective of the international system suggests that the actions and interactions of the Saudi-Led cartel with the United States, who have risen in the oil market, has transformed the conditions of the coalition from a collective mentality into an “everyone for themselves” state. This transformation demonstrates the importance of studying the individual states in order to understand the international system as states within the coalition and outside the coalition are battling for economic viability in the oil market.



Audel Rosas
M McNAIR SCHOLAR
INTERNATIONAL AFFAIRS



DR. VANDANA
ASTHANA
PROFESSOR
DEPARTMENT OF POLITICAL SCIENCE

IS THE WAGE DIFFERENCE BETWEEN SPOKANE COUNTY AND KING COUNTY OFFSET BY COST-OF-LIVING DIFFERENCES?

In Washington State, King and Spokane County are the two highest population counties with the greatest absolute employment levels. In 2014, the median wage in King County (Seattle) was \$70,589 while in Spokane County the median wage was \$42,650. This paper looks to discover some of the causes of the large wage difference, and if the higher wage in King County is offset by higher costs to live there. Theories and data are collected from published peer reviewed articles, Bureau of Labor Statistics, City Data, United States Census Bureau, and Massachusetts Institute of Technology's (MIT) Living Wage Calculation of minimum cost-of-living standards. The results suggest that at lower wages, the wage differential does not offset the high cost-of-living in King County. However, at higher wage levels, the wages from transferable job skills between Spokane and King County does offset King County's higher cost-of-living. In particular, differences in employment in certain industries and the overall population level also explain a portion of the wage differential.



Donya Quarnstrom

**MCNAIR SCHOLAR
ECONOMICS**



DR. KELLEY CULLEN

**ASSISTANT PROFESSOR
DEPARTMENT OF ECONOMICS**

VOICE AND IDENTITY: HOW RELIGION PLAYS A CRITICAL ROLE IN CHICANA WOMEN'S LIVES

Chicana women are driven away from their voices. Mainstream society and its social structures attempts to strip away Chicana women from their willingness to challenge dominant and oppressive constructs. This reflects on Chicana women when their voice and identity is questioned in ways that reflect on their development of character and voice. This differs when the institution of religion plays a large role in how these women perceive the world. Religion is a major factor that restrains women in being able to develop their voice and identity. This paper undertakes a personal narrative from a feminist standpoint to investigate how Chicana women who are enrolled in institutions of higher education are affected by religious socialization in relation to being able to express themselves in a critical and analytical manner. Future research will focus on conducting in-depth interviews in order to fully understand how Chicanas' religious upbringings influences their college experience.



Minerva Zayas

**MCNAIR SCHOLAR
PSYCHOLOGY**



DR. JESSICA WILLIS

**VISITING ASSISTANT PROFESSOR
DEPARTMENT OF WOMEN'S +
GENDER STUDIES**

PATRIARCHY IS IN EVERYTHING: WOMEN'S BODIES, INDIAN CULTURE AND HOW MORALITY RESTRICTS

In today's westernized culture, a women's body is seen as a tool for sex objectification and used in society for consumeristic purposes in terms of a patriarchal context. Women's bodies are being held restricted in terms of their own authority and supremacy. Drawing from feminism and ethics, this paper argues that androcentric world views attempt to subjugate and disenfranchise women. The purpose of this investigation is to examine and critique the influence of patriarchy on women's agency to insert themselves in a position to transform social, political and cultural structures within society. Such work is important because it exposes gender oppression and what we can do to challenge and move beyond patriarchal thinking. This can support spaces where women can express and critically analyze the social forces working against their empowerment.



Minerva Zayas

**MCNAIR SCHOLAR
PSYCHOLOGY**



DR. MIMI MARINUCCI

**PROFESSOR
PHILOSOPHY/WOMEN'S AND
GENDER STUDIES**

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