

Abstracts by McNair Scholars at the University of Oregon

Problems of Undocumented Immigrants in Oregon, 2010

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Political Science

Faculty Mentor: Daniel Tichenor
Political Science

In Oregon, immigration policy is one of the most debated issues in public discourse. Restrictionists tend to focus on the costs to the state of providing certain public services to immigrant families, while others contend that immigrants are an important part of Oregon's economy. This study, using data drawn from major state newspapers and independent agencies within the state, analyzes the struggles undocumented immigrants face as restrictionist and pro-immigrant groups debate policy differences. Also, this study suggests that a workable solution that incorporates economic and social justice requires collaborating with immigrants themselves. The analysis of restrictionist and expansionist positions on immigration policy concedes that arguments focused on costs to the state are supported by some legitimate evidence, but these generalizations about both documented and undocumented immigrants are limited because they ignore the crucial roles immigrants play in many industries in Oregon and the national economy.

Teacher Preparation for Engagement in Educational Policy Reform

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Educational Foundations

Faculty Mentor: Arthur Pearl

Education

Educational reform in the United States impacts the daily lives of students and teachers. This study surveyed forty-seven current and future teachers to examine whether teacher education programs are preparing teachers to be part of education reform to bring about social justice, both locally and nationally. The survey gathered data about the relationship between formal efforts to educate teachers about policy reform and teachers' current satisfaction with, and involvement in, educational policies. Almost half of the participants agreed that they were not prepared to be part of the reform and debate process. More than half of the participants were unsatisfied with current national and state educational policies, but a majority agreed that they do not actively participate in the education reform debate or process. Results suggest that the content of teacher education programs needs to be critically assessed and adjusted to prepare teachers to be participants in educational reform for social justice. Elementary and secondary teacher education programs claim to be training future educators to be agents for social change however this research shows that they are systematically failing by leaving out of the curriculum political engagement in educational policy reform.

The Regional Impacts of the Drug Trade in Mexico

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Economics / History

Faculty Mentor: Shankha Chakraborty

Economics

This research examines the relationship between the drug trade in Mexico and its effects on various regional economies of that country. Three economic indicators serve as the basis for tracking regional economic performances: average regional GDP, average regional poverty rates, and average state unemployment rates. These indicators give an accurate and general overview for evaluating the economic wellbeing of the various regions. The research measures drug activity indirectly through collected data on reported drug-related seizures and violence, and then creates an index of regional drug activity. That index, in turn, is regressed with the economic indicators to determine the relationship with the drug trade and the probability of drug activity explaining changes in any of the three economic indicators. Data for this research spans the years 1998 through 2008.

Group Rebelling Behavior: A Mathematical Model for Political Revolution

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Economics / Mathematics

Faculty Mentor: Chris Ellis

Economics

We model a political revolution as a game. Given that all participants will be severely punished when the revolution fails, we can intuitively see two equilibria for the game—either everyone participates in the revolution, or no one participates in the revolution. With multiple equilibria, it is difficult to predict the behavior of people or to implement policies. The model proposed by Morris and Shin (1998) offers a solution to this problem. By adding a little noise to the signal perceived by individuals, their model demonstrates a unique equilibrium. Then we will discuss the dependant variables of the unique equilibrium.

Minding the Gap between Mormons and the Environment

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Environmental Studies

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Folklore, Environmental Studies

The earth is currently in a state of environmental crisis, which could lead to broad devastation of life. The collaboration of many fields is needed to solve this crisis. Religion, a powerful tool that can guide and direct the hearts and actions of the masses, may be highly qualified to contribute positively in the effort to find environmental solutions. Although many religious leaders have encouraged their followers to examine their relationship with the more-than-human world from the perspective of their religious beliefs and convictions, one body that has remained relatively silent is the Church of Jesus Christ of Latter-day Saints (LDS). I investigate why this silence exists, despite the emphasis on stewardship that lies within LDS church doctrine. Through an analysis of literature and a survey of LDS church members I hope to shed more light on these questions and compare the answers to the actions of the LDS church members today.

Harlem's Socrates: Race First in Jim Crow America

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History / Spanish

Faculty Mentor: Melissa Stuckey
History

For African Americans, World War I and the years that followed were years of continued oppression and hypocrisy. President Woodrow Wilson repeatedly asserted the need to defend democracy abroad, a call controversially supported by W.E.B. Du Bois, while such injustices against democracy as lynching and Jim Crow laws continually plagued African Americans within the United States. In Harlem, a group of educated African Americans had visions and demands beyond those of Du Bois or the mainstream NAACP. Hubert Harrison led this community, organizing educational and activist organizations such as his Liberty League of Negro Americans, and publishing important periodicals. Using diaries, newspapers and correspondence, supplemented with secondary biographies, this investigation uncovers part of Harlem's history by studying Harrison, members of Liberty League, and the organization's periodicals *the Voice* and *the Clarion*.

Violations in Social Contract Rules: Betrayal Trauma and the Affect on Deontic Reasoning Abilities in Forensic Inpatients

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Psychology / Russian and East European Studies

Faculty Mentor: Jennifer J. Freyd

Psychology

Graduate Student Mentor: Christina Gamache Martin

Psychology

Early traumatic childhood experiences are likely to cause a number of adverse effects in survivors of trauma. Jennifer Freyd's Betrayal Trauma Theory explores the effect that abuse perpetrated by a caregiver or close other may have on one's ability to preserve attachment. Betrayal trauma may also affect a child's understanding of social contracts by impairing deontic reasoning, an ability that normally helps people identify what is obligatory, permissible, and forbidden. This study seeks to examine the relationship between impaired deontic reasoning and experiences with betrayal trauma among forensic inpatients at the Oregon State Hospital. Gaining a better understanding of how past traumatic experiences affect reasoning in that population may provide tools to improve prevention and intervention. Methods for the study include administering brief questionnaires and the Wason Selection Task to between 50-60 institutionalized inpatients.

A Model Auditory Neuron Using an ATmega328 Microcontroller

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Psychology / Biology

Faculty Mentor: Michael Wehr

Psychology

The goal of this project is to build a model auditory neuron using an Arduino (ATmega328) microcontroller. This is a well documented and common microcontroller so the model will be easily reproduced and configured for multiple research methods used by electrophysiologists. The model neuron is essentially a filter chain that processes audio input from a microphone using an FFT based FIR-filter. The filter chain is tied to an integrate-and-fire process so output will resemble the spiking response of a tuned auditory neuron (i.e., a tuning curve). Beyond practical uses for calibration this research could lead to a more interesting implementation of a neural model using multiple microcontrollers that may help to develop digital methods to test new hypotheses concerning auditory processing.

**Male Dominance Hierarchies and
Subsequent Female Preference:
Preliminary Study for the Efficacy of
Mate Choice in St. Catherine's Island
Ring-Tailed Lemurs**

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Environmental Studies / English

Faculty Mentor: Frances White
Anthropology

The study of prosimians is a new and expanding field of research. St. Catherine's Island, Georgia, is a wildlife sanctuary containing 60 free-ranging *Lemur catta*. The island hosts several troops, which in previous years have consisted of several related females and one core male. Recently, however, several males have been allowed to remain in the troops to better emulate natural troops within the wild. Some important questions to explore during this changing period are whether the original core male will maintain dominance over the introduced males and whether the females will show more tolerance towards this male, especially in terms of feeding priority and later acceptance during the breeding season. During my time at the site, I collected samples and observed agnostic interactions between males, relative male deference towards females, and subsequent tolerance of females towards certain males. As *Lemur catta* are listed on the IUCN Redlist as "Near Threatened," the continued study of this species is pertinent in creating strategies for effective conservation tactics.

Access to Critical Oncological Support Systems For Newly Diagnosed Breast Cancer Patients

Julie Reid

Planning, Public Policy and Management

Faculty Mentor: Jessica Greene

Planning, Public Policy and Management

A woman newly diagnosed with breast cancer is required to have a team of doctors that work together to carry out the various phases of treatment. It is important to new patients that they trust their doctors, yet women rarely are given a choice about that key person. Women lack knowledge about local support groups and patient advocates, are confused about who may attend groups, and unclear about where to go to find answers. This is a qualitative study of thirteen breast cancer patients diagnosed within the last seven years in Eugene, Oregon. The study examines the knowledge and accessibility of critical support systems, such as a good doctor-patient relationship, a support group, and a patient advocate. Results suggest that doctor trust and support is more likely to develop when the patient receives a referral from a familiar source. Also, results suggest that support groups are important sources of information and comfort for patients that medical professionals could utilize. The role of a patient advocate needs to be further defined and expanded to provide resources for patients seeking ways to fill the gaps of a fragmented medical system in Eugene, Oregon.

**Late Pleistocene/Early Holocene
Archaeobotanical Study of Paisley Caves:
Seeds as Diagnostic Environmental and
Human Activity Markers**

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Anthropology

Faculty Mentor: Dennis Jenkins
Museum of Natural and Cultural History

Excavations conducted at Paisley Caves in Oregon's Summer Lake Basin have yielded an archaeological record spanning over 14,500 years. The extreme, dry conditions of the caves have created a rare and ideal environment for the preservation of delicate archaeological materials. This study focuses on the macrobotanical remains, primarily seeds, excavated between 2007 and 2009 from strata spanning a period from the late Pleistocene through the early Holocene, roughly 15,000 to 7,500 years ago. The aim of the study is to test if positive identification of seeds will statistically show an environmental shift in the Summer Lake region during that period. The study will also identify any significant statistical frequencies of food seeds, if present, that may strengthen arguments for human occupation of the caves as early as 15,000 years ago.

Usos y Costumbres of Santa María Tindú

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Ethnic Studies / Political Science

Faculty Mentor: Lynn Stephen
Anthropology

Santa María Tindú is a small, indigenous village in the State of Oaxaca, Mexico, that has experienced significant outward migration over the last three decades resulting in the loss of over 60% of the population living there in the 1990s. My research looks at the relationship between immigrants of Tindureño descent in the state of Oregon, and civic and political participation as it changes across place and time. In particular, I focus on how the tradition of *usos y costumbres* (the appointment of community members to local leadership positions through traditional practices outside of the party system) has migrated to the United States and how that tradition operates in its new setting. Also, I examine the ways in which the significant out-migration has affected how *usos y costumbres* is practiced in Tindú.

“Filling a Void” vs. “Crowding the Space”: Gendered Representations of Stepmothers within Sociology Textbooks

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Sociology

Faculty Mentor: Aliya Saperstein

Sociology

Faculty Mentor: Robert O’Brien

Sociology

This study utilizes primary content analysis to evaluate the presentation of stepparents in a selection of popular marriage and family textbooks in use today. It employs quantitative and qualitative measures to examine the representation of stepmothers relative to stepfathers and assess the content and context of their representations. The textbooks reviewed routinely included a range of alternative family forms such as adoption, childlessness by choice, and infertility. However, in many cases, the stepfamily is considered outside of the primary discussion. Principle findings of this study suggest that sociology textbooks marginalize the stepfamily as a legitimate family form and further marginalize the stepmothers within the stepfamily.

Emotional Facial Expressions and Personality Traits

Adrian Yupanqui

Psychology

Faculty Mentor: Sanjay Srivastava

Psychology

Humans are able to use facial expressions to predict someone's behavior. This ability may also extend to inferring personality traits. Knutson's work suggests that emotion facial expressions convey a person's internal state as well as interpersonal information that others use to infer stable personality traits. In a series of experiments, Knutson found that perceivers used a target's emotion-based facial expressions to infer the target's levels of dominance and affiliation. We extend this work by examining the emotions being experienced by the perceiver. The study examines how the perceiver's current emotional state interacts with the target's facial expressions (happiness, sadness, neutrality, anger, and anxiety) in predicting perceptions of targets' Big Five personality factors (Extraversion, Agreeableness, Conscientiousness, Openness, and Neuroticism). In other words, we seek insights about how present emotional states may affect a person's interpersonal inferences made from a target's emotion facial expression.