

*The University of Washington Office of Minority Affairs'
Ronald E. McNair/Early Identification Program
and
The Graduate School's
Graduate Opportunities and Minority Achievement Program
Present the 15th Annual Spring Research Conference:*



Fostering A New Generation of Research

***MAY 4
8:00-4:30***

***MAY 5
8:30-1:00***

THE HUSKY UNION BUILDING



Table of Contents

McNair Welcome Letter	3
Graduate School Welcome Letter	4
EIP/McNair Staff Biographies	5
Conference Schedule	6-7
Graduate School Workshop Information	8
Faculty Panel Workshop Information	9
Oral Presentation Abstracts	10-14
Poster Abstracts	15-31
UW Student Accomplishments	32-37
Life of Ronald E. McNair	38
About Our Sponsors	39

Special thanks to:

Sigma Xi



McNair Welcome Letter

Each year, the Early Identification Program (EIP) for Graduate and Professional Studies and the Ronald E. McNair Program host a research conference where students, faculty, and staff convene to share intellectual ideas, engage in a variety of discussions, and build collegial relationships. For the past four years we have been fortunate and proud to collaborate with The Graduate School's Graduate Opportunities & Minority Achievement Program (GO-MAP) to continue to expand and improve our conference offerings. Additionally we are pleased to welcome the support of additional organizations. Specifically, Sigma Xi, The Scientific Research Society.

The event also offers the EIP/McNair staff and the University an opportunity to publicly recognize the accomplishments of many of our students, especially our graduating seniors who will be moving on to graduate and professional programs in the fall, and our returning students who have received summer internships and various honors and awards.

This conference is staged as a professional meeting that allows students to present the findings of original research they have conducted throughout the year in collaboration with a faculty mentor. The event also presents a unique opportunity for other students to be exposed to the scholarly work of fellow EIP/McNair students who are making a contribution to the scholarly and intellectual atmosphere at the University. It is our great pleasure to welcome to the region, our McNair colleagues from Henderson State University, University of North Dakota, Boise State University, Long Beach State University, University of California at Los Angeles, and Cal State Dominguez Hills. We are honored and humbled that they have chosen to come and share space with our university community.

This year we are pleased to have one of our McNair graduates, Dr. Christina Roberts, as our keynote speaker. Christina (Gros Ventre, Assiniboine) has recently finished her Ph.D. in English at the University of Arizona with a focus on American Indian literatures. Dr. Roberts has accepted a tenure track appointment at Seattle University. She received a Master's Degree in English from the University of Arizona in 2004 and earned two Bachelor's Degrees in English and Comparative History of Ideas from the University of Washington in June 2001. In addition to her Ph.D. work Christina also works with Arts Reach, a nonprofit organization that provides writing workshops to American Indian students and families in and around the Tucson area, spends time with her friends and family, and enjoys playing Ultimate Frisbee.

The Office of Minority Affairs and the entire EIP and McNair staff welcome you to this year's conference. We hope you will have an enjoyable time throughout our conference.

Dr. Gabriel Gallardo, Director
The McNair Program & Assistant Vice President, New Initiatives

Dr. Steven P. Woodard, Director
The Early Identification Program

Graduate School Welcome Letter

Dear McNair Scholars and Community Members:

While McNair students are from many different disciplines—from the humanities to the social sciences to the natural sciences—all are alike in their excellence, which you will clearly see in their work. The McNair Program’s mission—to ensure access to graduate education, particularly to students who have been traditionally underrepresented in our academic institutions—is critical to the future of higher education in the U.S. As our population becomes increasingly diverse, we of course need more role models on our faculties and in leadership positions, but it is also critically important that we not waste talent. Efforts offered through the McNair and Early Identification Programs help meet this challenge. For this reason, the University of Washington Graduate School’s Graduate Opportunities and Minority Achievement Program (GO-MAP) is a proud partner with the McNair and EIP Programs. We share a mission: To find, encourage, and support these talented students so that they can take their place in the next generation of scholars and intellectual leaders of this society. In light of our shared goals, I am very proud to announce that The Graduate School and GO-MAP received endowment funds to establish the UW McNair Graduate Fellowship Program, which for the first time this year provided three prestigious awards to former McNair students.

Finally, we need to recognize that one of the most important ventures that the University of Washington and other research universities undertake is to train outstanding researchers. Our students have the wonderful educational opportunity to study with and learn the craft from some of the leading scholars in their discipline. By taking advantage of this opportunity, McNair Scholars will be among the most competitive for the best spots in graduate training programs across the country, as well as for the fellowships and research assistantships that will support their work and study. I of course hope that some of you will find your place of graduate study at the UW!

I know that you will enjoy the work presented throughout the conference and join me in appreciating the quality of these outstanding scholars.

Sincerely,



Juan Guerra, Associate Dean
The Graduate School, GO-MAP



Dr. Gabriel Gallardo, Director of McNair

Dr. Gallardo earned his Ph.D. in Geography. His research interests include the geography of race and ethnicity, Latino settlement in the U.S., and the socio-spatial dimensions of ethnic economies. His dissertation research focused on the social, economic, and geographic dimensions of African American, Chinese, Korean, and Mexican entrepreneurship. He is also interested in minority student access to graduate education and graduate retention issues.

Dr. Steve Woodard, Director of EIP

Dr. Woodard earned his Ph.D. in Educational Leadership and Policy Studies. His research interests include the examination of un/written academic policies disproportionately impacting first-generation college attending students, low-income students, and/or students of color, as well as multicultural and feminist approaches to understanding a student's developing sense of self. His research also includes poetry/poetic voice as a transformative form of educational inquiry.

Dr. Gene Kim, Assistant Director of EIP/McNair

Dr. Kim was a Postdoctoral Research Fellow 1999-2001 at the University of Wisconsin-Madison. Dr. Kim earned his Ph.D. in Education in 1999 from the University of Wisconsin-Madison and a M.S. in counseling in 1995 from the University of Wisconsin-Madison. His dissertation was on statistical regression modeling on first generation, low-income, and underrepresented students in higher education (TRIO Student Support Services). His interest include: student behavior and learning, organizational behavior in higher education, research methods and statistics.

Zakiya Adair, Graduate Advisor

Zakiya is a PhD candidate in the department of Women Studies. Zakiya's area of interests include women's 20th century social history (broadly defined). Specifically, she plans to research Black women entertainers performing abroad during the period of the Harlem Renaissance.

Jill Meyer, Graduate Advisor

Jill is a Ph.D. student in astronomy. Her research uses observations and computer simulations of galaxies to discover how they formed long ago, and how they evolved into the structures we see today. She also served in the U.S. Peace Corps in The Gambia as a college science teacher. Her interests are (1) to solve the mysteries of the universe and (2) to share these mysteries with everyone who wants to learn about them.

Cuahtémoc Mexica, Graduate Advisor

Cuahtémoc is a M.A. candidate in the department of Comparative Literature and an instructor of Spanish. His research interests include cinema studies, social and cultural theory, as well as Brazilian, Chicana/o, and Mexican contemporary literature. He is coming most recently from the University of Illinois graduate studies programs in Portuguese and socio-cultural anthropology.

Rocio Mendoza, Graduate Advisor

Rocio is pursuing a master's degree in the Educational Leadership and Policy Studies program in the College of Education. Her research interests are in the access and retention of students of color in higher education. Rocio is currently studying the transitions of immigrant students from high school to college, both from a policy and psychosocial perspective, and uses Critical Race Theory and Latino Critical Theory as theoretical frameworks.

Conference Schedule Friday May 4, 2007

8:00-9:00 HUB East Ballroom

8:15-9:00 HUB East Ballroom

9:00-10:30 HUB 200BC

10:30-11:00 HUB East Ballroom

11:00-12:30 HUB 200BC

12:30-1:30 HUB East Ballroom

1:30-3:00 HUB East Ballroom

3:00-4:30 HUB 200BC

Registration

Light Breakfast

Oral Presentations Session I

Break (Posters open for viewing)

Oral Presentations Session II

***Luncheon, Keynote Speaker:
Dr. Christina Roberts, Seattle University***

Poster Presentation Session

Oral Presentations Session III

Conference Schedule Saturday May 5, 2007

8:30-9:00-Continental Breakfast
Hub Room 108

9:00-10:00
Graduate Student Panel
HUB Room 108

10:00-10:30-Break

10:30-11:30
Faculty Panel #1
HUB Room 309

11:30-12:30-Boxed Lunch
HUB Room 108

12:30-1:00
Faculty Panel #2
HUB Room 309

Graduate School Workshops

“The Culture of Graduate School”

What happens after you have been admitted to your graduate program? Come and learn from these current graduate students how to survive your first year, what graduate school is really like and how you can make the most out of your time in graduate school.

Workshop Panelists

Francisco I. Pedraza

Francisco Pedraza is in his second year of the Political Science PhD program at UW. His research addresses the impact of immigrants on U.S. political institutions, and how U.S. politics, in general, impacts the immigrant experience. Francisco describes his graduate experience thus far as very positive. One of the most rewarding experiences for him has been presenting at professional conferences, where he shares his work on levels of trust among migrant and seasonal farmworkers, and Latino voting behavior. Additionally, Francisco finds the Pacific Northwest, and Seattle in particular, to be an ideal place for graduate study. This upcoming Fall Francisco is scheduled to defend a Master’s thesis, and shortly after will take the Political Science qualifying exams.

Tracy Marie Hilliard

Tracy Hilliard is a doctoral candidate in the School of Public Health and Community Medicine’s Health Services PhD Program. Her research interests include studying how social factors impact health promotion and disease prevention among ethnic minorities, particularly African Americans. She received both her Bachelor of Arts in sociology and her Master of Public Health in health services from the University of Washington. Currently, her graduate training is supported by a Continuing Umbrella of Research Experiences (CURE) Minority Supplement to the National Cancer Institute’s Cancer Education and Career Development Program.

Ji-Young Um

Ji-Young Um is a Ph.D. candidate in the English Department. She received her M.A. from Goldsmiths College, University of London, and her B.A. from Oberlin College, Ohio. She is currently writing on her dissertation—on 20th century U.S. wars in Asia and literary and cultural narratives—which she hopes to finish by next year. Having spent over 6 years in graduate school now (including the year working on her M.A.), Ji recommends taking a more efficient approach to one’s graduate work and training; at the same time, she also recommends taking full advantage of and basking in the intellectual, social, professional support and other such indulgences that academia offers.

Christopher Himes

Christopher Himes is a fifth year Ph.D. student studying evolution in the Department of Biology and the Burke Museum. Chris’s interests include conducting field and laboratory research on the relationships and histories of populations. He is also active in educational initiatives to increase the participation and success of underrepresented students in the biological sciences. On completion of his doctoral program Chris intends on continuing in academia with a post-doctoral research appointment and eventually transitioning into a faculty position. Chris has had a wide range of experiences, both challenging and enriching, over the last five years at the University of Washington. He enjoys sharing these experiences with students interested in attending graduate school.

Simon V. Trujillo

Simon is pursuing a Ph.D. in English at the University of Washington. He received his B.A. in English and Philosophy from the University of New Mexico. Simon’s research focus at the University of Washington is on critical race theory, visual culture, and immigration and U.S. imperialism. In his spare time Simon volunteers for Proyecto Saber a Seattle based program that offers seminars to underserved Latino students.

Faculty Panel Workshops

Scholar. Academic. Professor. Administrator. What do these labels really mean? More importantly, what can you expect if you expect if you choose an academic career? Spend time with this panel of faculty and administrators exploring these and other important questions in a two-part session (includes lunch) that will lead you to make an informed decision when the time comes.

Dr. Ed Taylor

Dr. Taylor is Vice Provost and Dean of Undergraduate Academic Affairs and Associate Professor, Educational Leadership & Policy Studies. His areas of teaching and research include history of higher education, policies and programs servicing disenfranchised groups in secondary and post-secondary settings, and the construction of race-based policy. Dr. Taylor has co-authored articles with Steven Olswang on The Effect of Desegregation Litigation on Historically Black Colleges, and has completed a book chapter and article with Dr. Jim Antony on the socialization of African American graduate students. Most recently he has published articles on the social construction of race and Critical Race Theory. Dr. Taylor's current research inquires into racial identity development and achievement and aspirations of high school students.

Dr. Ileana M. Rodriguez-Silva

Dr. Ileana M. Rodriguez-Silva is assistant professor of Latin America and Caribbean history in the Department of History at the University of Washington. She earned a B.A. from the Universidad de Puerto Rico and her M.A and Ph.D. in History at the University of Wisconsin-Madison. Her areas of specialization are racial identity formation and nation building in the nineteenth and twentieth century, slave and post-emancipation societies, racialization and imperial politics. She is the author of "Exploring the Lives of Freedwomen: Choices, Family, and Gender During the Processes of Emancipation in Puerto Rico, 1873-1876" in *Gender and Slave Emancipation in Comparative Perspective*, Diana Paton and Pamela Scully, eds. (Durham: Duke University Press, 2005), 199-222. Currently she is working on a book manuscript titled *A Conspiracy of Silence: Disentangling Blackness, National Identities, and Colonial Regimes in Puerto Rico (1850-1920)*.

Dr. Ralina Joseph

Ralina L. Joseph, Assistant Professor, received her Ethnic Studies Ph.D. and M.A. from the University of California, San Diego. Her dissertation, "New Millennium 'Mulattas': Post-Ethnicity, Post-Feminism, and the Mixed-Race Excuse," investigates how contemporary representations of multiracial African American women are used for neo-conservative political agendas. Her undergraduate degree is from Brown University, where she majored in American Civilization. Dr. Joseph is broadly interested in contemporary representations of race, gender, and sexuality in the United States. Her current research includes an analysis of "post-identity" performances in Tyra Banks's popular reality show, America's Next Top Model.

Dr. Rachel R. Chapman

Research Interests: Political economy of prenatal care and reproductive health management; birth in the other America; racial/ethnic disparities in health; domestic violence and social cohesion; women and AIDS treatment in the African Diaspora; the intersection of race, class and gender in ethnic identity; urban US, Mozambique and South East Africa. "My commitment is to researching, publishing and applying to real world problems an understanding of the meaning and politics of race, class and gender identities as they intersect in culture with power to inform the life chances and life quality of people on the margins of society. Unifying my research and writing to date is concern with exposing the intricate ways that race, class and gender shape social hierarchies in the U.S. and global order, and with grounding questions of race, class, and gender inequalities within non essentialist understandings of identity."

Dr. Francisco Benitez

Areas of Study: Colonial and Postcolonial Literature and Theory (particularly in Insular Southeast Asia), Diasporic and Transnational Literature and Culture, Southeast Asian Film and Literature, Philippine and Filipino American Studies. Dr. Francisco "Kiko" Benitez is assistant professor in Comparative Literature. He received his PhD from the University of Wisconsin-Madison, and his BA from Cornell University where he graduated with honors. His research interests include the multiple and often conflicting formations of modern subjectivity and the nation-state in the literature and film of insular Southeast Asia in the late nineteenth and twentieth centuries. His current research is on the constructions of subjectivity in the Philippine *awit* and the Malay/Indonesian *syair* during the emergence of print-capitalism and nationalism in insular Southeast Asia.

Oral Abstracts

Name: Parwiz Abrahimi

Major: Bioengineering

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Bioengineering

Project Title: "Design and seeding optimizations of a perfusion bioreactor system for intestinal tissue engineering"

Faculty mentor/s and department/s: Dr. Stephen Kim (Surgery, Bioengineering), Dr James Bryers (Bioengineering)

Abstract

Our laboratory is investigating the tissue engineering of small intestine. Previous research has demonstrated the advantage of flow based culturing systems for improving cell attachment, survival, and proliferation on biomaterials. We have designed a perfusion based bioreactor system for long-term in vitro conditioning and dynamic seeding of multi-cellular intestinal epithelial organoid units. The specific uses of the bioreactor will be to dynamically seed cells onto biodegradable polymer matrices and provide favorable long-term culture conditions for new tissue development. We are working to characterize the optimal conditions for dynamic cell seeding and long term culture of intestinal cells on polymer scaffolds. We hypothesize that there exists an optimal flow rate that maximizes the cell-scaffold exposure time and ensures high cell retention on the scaffold while minimizing cell damage. In this respect, the mixing characteristics as well as optimal seeding conditions to seed intestinal epithelial organoid units are explored, as well as the design considerations put behind the perfusion bioreactor.

Name: Carly Cate

Major: English

University Name: Henderson State University

Year at University: Senior

Graduate Degree Interest: Literature

Project Title: "Restoring Sylvia- Reconstructing Sylvia Plath's Ariel"

Faculty mentor/s and department/s: Dr. Marck L. Beggs, Graduate School Dean/English

Abstract

In Sylvia Plath's, Ariel, first released in the United Kingdom in 1965 and in the United States in 1966, her husband, Ted Hughes, meticulously altered the released work from Plath's original manuscript. Hughes removed and replaced several poems in the US and the UK versions. Does replacing more personal and confessional poems with less offensive, more "suitable" works make the first editions of Ariel better than his wife's true original collection? These changes and manipulations are superbly demonstrated in Ariel: The Restored Edition, released in 2004. In this edition, Frieda Hughes, daughter to Sylvia Plath and Ted Hughes, provides a very insightful, though possibly skewed, forward. Ted Hughes, in editing her original manuscript, served one purpose, to protect himself. Those poems he mutilated and removed were part of Plath's original manuscript for a reason.

Name: Grace Cochon

Major: Psychology

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Social Psychology, Primatology

Project Title: "Monkeys and Mirrors: Self-Recognition among Captive and Wild Macaques."

Faculty mentor and department: Dr. Randall Kyes, Psychology

Abstract:

Self-recognition has long been considered a distinctly human trait, thought to separate humans from the rest of the animal kingdom. It has most commonly been tested through the use of mirrors, with humans, chimpanzees, bonobos, and orangutans as the only species that have yet indicated the ability to self-recognize. Other primate species, however, have mostly been observed to display social behavior towards their reflection, indicating that they perceive the image as another animal. This study tested the self-recognition abilities in macaques (indicated via self-directed behavior while using a mirror), both in captivity and in the wild. Captive pigtailed macaque monkeys (*Macaca nemestrina*) maintained at the Infant Primate Research Laboratory at the University of Washington and wild longtailed macaques (*M. fascicularis*) living in a free-ranging social group on Tinjil Island, Indonesia were tested for self-recognition. While no subjects in either group displayed clear indications of self-directed behavior, they did show classic mirror-directed responses, treating their own reflection as if it were an unfamiliar conspecific.

Oral Abstracts

Name: Katharine Liang, Senior

Major: Neurobiology

University Name: University of Washington

Year at University: Senior

Graduate Degree Interests: Neurobiology, Biological Structure, Biophysics/Physiology

Project Title: "Biomaterial implants: Controlling the inflammatory response by biomaterial surface modification."

Faculty mentor/s and department/s: Marta Scatena, Bioengineering, Cecilia Giachelli, Bioengineering

Abstract

Biomaterial performance is often impeded by the Foreign Body Reaction upon implantation into host tissue, a reaction resulting in inflammation that can often lead to implant degradation by recruited macrophages. This innate host immune response can prevent the biomaterial implant device from performing its intended function. While macrophages can often have damaging effects in an implant-host environment, recent studies have highlighted the additional roles that macrophages also play in initiating the healing process. Therefore, negative implications of inflammation may be alleviated by further characterization and control of the particular type of inflammatory response induced. Previous studies have characterized three basic types of inflammatory response – classical activation, alternative activation, and post-apoptotic cell uptake. Modification of biomaterial surfaces with proteins that induce a specific inflammatory response is one approach to alleviate the damaging effects of uncontrolled inflammation often resulting from biomaterial implantation. Osteopontin(OPN) is one such protein that interacts with macrophages, controlling a variety of different cell processes, including modulation of inflammatory responses, chemoattraction, and recruitment. Cleavage of OPN at specific sites has been shown to alter the activity of OPN *in vitro*, exposing specific active sites that may mediate the inflammatory response. In this study we have characterized the inflammatory response of RAW 264.7 macrophages and murine bone marrow derived macrophages by activating cells *in vitro* and quantifying gene upregulation using real-time PCR and ELISA. Future studies will include characterization of the inflammatory response of murine bone marrow derived macrophages when plated on OPN-coated surfaces.

Name: Shantel Martinez

Major: History

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Education

Project Title: "Bridging Dialogue: A Historical Analysis of the Integrated Education Movement in Northern Ireland."

Faculty mentor/s and department/s: Dr. Ed Taylor, Education

Abstract

Although Northern Ireland is not in the chaotic state that it has been in for the last hundred years, peace is still not present. Tensions and distrust still exist between Unionist and Nationalist communities. However, one way that peace is progressing in Northern Ireland, is with educational reforms. The most influential of these reforms has been the establishment of the Integrated Education Movement in the 1980's by parents. The purpose of the Movement is to bring students from both Protestant and Catholic backgrounds and teach them in the same learning environment. Although this does not appear to be a monumental change, schools in Northern Ireland are still segregated by religion to this day. In addition, the Integrated Education Movement has lead the way for cross-community dialogue and cross-community relationship/trust building, which have been crucial for the existence of the IEM and its future. However, the different communities do not always support the Movement. Social and religious leaders have been skeptical of the reform and as a result, change is slow. Only five percent of all schools in Northern Ireland are integrated and the curriculums of the schools are still debated. By using Northern Ireland as a case study, researchers are able to acquire knowledge and insight and use it to develop techniques in which post conflict societies may continue their peace process. Although Northern Ireland still has many hurdles to clear before peace can fully exist, the integrated education movement is one method that Northern Ireland can stay on a path of harmony.

Oral Abstracts

Name: Casey D. Nichols

Major: History

University Name: California State University, Long Beach

Year at University: Senior

Graduate Degree Interest: History

Project Title: "Common Resistance Through Popular Culture: African American and Mexican American Hipsters in WWII Los Angeles"

Faculty Mentor/s and Department/s: Jane Dabel, Ph.D./Department of History

Abstract

In this talk, I analyze the relationship between African Americans and Mexican Americans in Los Angeles through the lens of 1940s hipster culture. Within my talk, I describe how the progressive components of hipster culture transformed this unique cultural expression into a collective form of radical resistance for black and Chicano youth in Los Angeles. Through my research, I seek to develop a new dimension to the study of race relations. Most race relations studies emphasize a black/white paradigm, but my research focuses on the historical relationship between two groups of color, which I propose was an essential component of race formation in early twentieth century Los Angeles. Utilizing historical research methodologies, I drew on historical newspapers, non-print sources, and first hand accounts as my main sources for primary information. In addition, the works of Los Angeles historians, such as, Josh Sides, Eduardo Pagan, and Kevin Leonard also served as essential secondary sources. Through combining these, as well as other primary and secondary sources, I conclude that 1940s hipster culture reveals a past history of social, cultural, and political solidarity between blacks and Chicanos in Los Angeles prior to World War II.

Name: Kyle X. Hill

Major: Psychology

University Name: University of North Dakota

Year at University: Junior

Graduate Degree Interest: Psychology

Project Title: "The Effects of Concurrent Fixed-Ratio and Variable-Time Schedules of Reinforcement on the Preratio Pause"

Faculty Mentor: Dr. Adam Derenne, Psychology

Abstract:

In the present study researchers examined the association between procrastination and post-reinforcement pausing. Twelve C57 BL/6 mice were trained on fixed-ratio schedules of reinforcement in which every 10 lever presses were reinforced with a sucrose pellet. The subjects were run according to an ABAC design including two baseline conditions (A) and two experimental conditions (B and C). The baseline conditions included only the fixed-ratio schedule. Experimental conditions involved the fixed-ratio schedule as well as a variable time schedule. The variable time schedule ran only during the first 15 s of each fixed ratio and delivered reinforcement, on average, every 30 s in one experimental condition and every 100 s in the other. Duration of the preratio pause was recorded as the dependant variable. Pausing among subjects was shown generally to increase in the experimental conditions relative to the baseline conditions. Results provided evidence that satiation rather than conditioned inhibition was responsible for increasing preratio pause durations within sessions. Conditioned inhibition was also seen to lessen with the availability of extra food. Findings also entertained causal implications in procrastination.

Oral Abstracts

Name: Alvaro Presenda

Major: Chemical Engineering

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Bioengineering

Project Title: “Optimization for the Biofabrication of Protein-Capped Quantum Dots”

Faculty mentor/s and department/s: François Baneyx, Chemical Engineering

Abstract

Quantum dots (QDs) are nanoparticles composed of atoms from groups IIB bonded with VIA and IIB bonded with VA of the periodic table whose physical dimensions (typically 1-10 nm) allows them to penetrate cell walls. QDs have many advantages over traditional biological dyes used for cell labeling including broadband adsorption, tunable (size-dependent) fluorescence emission with narrow bandwidth, large Stokes shift, high brightness, photostability and Transmission Electron Microscopy (TEM) visualization. QDs are generally synthesized in organic solvents using colloidal chemistry and are inherently hydrophobic. To become useful in biological application, they must therefore be functionalized with coating that improve water solubility and/or that allow targeting (e.g. proteins, antibodies, ligands). All these steps add to the production cost. Our goal is to construct designer proteins for the low cost and high yield synthesis of protein-capped quantum. The advent of recombinant DNA technology, together with progress in the understanding of protein structure-function, and the development of “irrational” approaches to create or select polypeptides for properties that were never intended by nature, has opened the door to molecular biomimetics. This new field can be used as a tool that will allow us to achieve our results. The first step of the molecular biomimetic approach is to isolate short polypeptides. The next step consists in contacting the library with the desired substrate, eliminating weak or non-specific binders by mild washing steps and recovering cells that bind to the target. Finally, we will test different fusion proteins on the inorganic binding sequence to tune core particle size and hence ϵ_{\max} making light emission more intense and easier to be perceived by the human eye.

Name: Shaun Scott

Major: History [Intellectual History], and Film

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Postcolonialism, Intellectual History, Documentary Studies

Project Title: “The Infamous: The Life, Times, and Mind of Karl Marx”

Faculty mentor/s and department/s: Professor John Toews (History and Intellectual History)

Abstract

This biography of Karl Marx seeks to address and resolve several cross-sections in Intellectual History and Postcolonialism. This is a subjectively-minded portrait of a remarkable historical individual whose ideas have had much to say to the developing nations of the world, and whose life has much to say to modern identity politics. The biography is two-tiered –objective and subjective—in focus. Objectively speaking, Marx’s ideas and idea-formation are contextualized in what one scholar has called the “experiential matrix” of 19th Century Europe. This act of contextualization serves the purpose of enunciating the historical parallels between A)the past paths to modernity taken by European nations (England, France, and Marx’s own Germany) 200 years ago and B)the modernization struggles of nations in the present. As Marx himself wrote in the early 1860s, “The story of Africa is the story of Germany under a different title.” Subjectively speaking, Marx’s life (1818-1883) was characterized by ethnic anxieties, fervent commitment to the revolutionary potential of discontented masses and insurrectionary ideals, international persecution at the hands of insecure governments, and poverty. The distance between Marx and, say, Malcolm X, is bridged, in this biography, with attention to the role identity-formation played in the life of a German-Jewish intellectual, activist, and fervent believer in the nuclear family.

Oral Abstracts

Name: Harkirat Sohi

Major: Biology: Applied & Computational Mathematical Sciences (ACMS)

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: Genetics, Mathematical Biology, Cancer, HIV/AIDS

Project Title: "Utilization of Bacterial Homologous Recombination to Create Deletions in the Human *MAPT* Gene for Identification of its Regulatory Elements."

Faculty mentor/s and department/s: Dr. Parvoneh Poorkaj Navas, Department of Psychiatry and Behavioral Sciences, Department of Medicine (Division of Medical Genetics.)

Abstract:

The gene that encodes the microtubule (MT) binding protein tau (*MAPT* gene) plays an important role in several neurodegenerative disorders such as Frontotemporal Dementia (FTD) and Progressive Supranuclear Palsy (PSP) and may also play a role in Alzheimer's disease (AD). A specific series of sequence changes in the DNA encoding the tau protein, called the H1 haplotype, is over-represented in subjects with PSP. Alternative splicing of exons 2, 3 and 10 results in variable inclusions of these three exons and tau mRNAs which can produce six different protein isoforms. *MAPT* exons 9, 10, 11 and 12 each encode microtubule binding domains. Tau proteins that include exon 10 have 4 MT binding domains and are referred to as "4 R" isoforms whereas tau isoforms without exon 10 are called "3R" isoforms. The overall goal of the project is to identify nucleotide variants in *MAPT* that influence splicing and/or transcription. We hope to identify these potential regulatory regions by deleting evolutionarily conserved sequences in the human tau gene on both the H1 and H2 haplotypes and to look at the deletion effects on transcription and translation in tissue culture transient transfection assays.

Name: Eric Stenehjem

Major: Chemistry and Biochemistry

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: PhD in Chemistry

Project Title: "Computational Study of a Pd-Catalyzed Hydroamination."

Faculty mentor/s and department/s: Dr. Forrest Michael, Chemistry

Abstract:

Computational modeling was used to investigate the reaction pathway of a palladium-catalyzed intramolecular hydroamination of unactivated aminoalkenes. DFT calculations were performed to explore the intermediates and transition states of the reaction pathway. Understanding the reaction pathway can lead to future advancements in substrate scope of the reaction and development of novel catalysts.

Name: Joseph Sunga

Major: Business Administration: Marketing/Entrepreneurship

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: MBA

Project Title: "Understanding the Concentration of Filipino Entrepreneurs within the Healthcare and Social Assistance Industry."

Faculty mentor/s and department/s: Michael Verchot, Director of the Business & Economic Development Center

Abstract:

The majority of Filipino entrepreneurs have been focusing on the healthcare and social assistance industry, making up 25% of all Filipino-owned businesses and generating 40% of all revenue from Filipino-owned businesses in the United States. This study focused on understanding why there is a large concentration of Filipino entrepreneurs within this industry. A qualitative field research study has been conducted on a sample of Filipino entrepreneurs in Washington State. Eight qualitative interviews were performed, accompanied by a questionnaire, which gathered data on motivations, education, industry background, immigration, and business profile. From this information, this study has shown several trends, which has given a better understanding of Filipino entrepreneurs within the healthcare and social assistance industry.

Poster Abstracts

Name: Martin Acevedo

Major: Psychology

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Clinical Psychology

Project Title: "Mindfulness Training as a Clinical Intervention and Prophylaxis in College Student Self-Esteem, Self-Efficacy, and High Risk Behaviors"

Faculty mentor/s and department/s: Dr. G. Alan Marlatt, Psychology

Abstract:

This study investigates the clinical effects of mindfulness-based training on college students at risk for alcohol-related problems. Mindfulness has been generally defined as the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to one's experience, moment by moment. (Kabat-Zinn, 2003) Mindfulness training is expected to significantly enhance the effectiveness of a brief intervention commonly used in college counseling centers – the Brief Alcohol Screening and Intervention for College Students (BASICS) (Dimeff, et al., 1999) With 80% of college students drinking alcohol, and 40-44% engaging in heavy, episodic drinking (O'Malley & Johnston, 2002), BASICS has empirically demonstrated effectiveness. (Marlatt, et al., 1998) Mindfulness training has been shown to aid in stress reduction (Kabat-Zinn et al., 1998), cognitive therapy (Segal, Williams, and Teasdale, 2002), Dialectical Behavior Therapy (Linehan, 1993), and Acceptance and Commitment Therapy ((Hayes, Strosahl, & Wilson, 1999). This study will examine the effects of mindfulness-based training on college students, ages 18-24, identified as at-risk, episodic drinkers. Groups of students will be randomly assigned to a baseline assessment only condition, BASICS (2 session including baseline session, group format), and BASICS + Mindfulness training (2 BASICS sessions + 4 weekly training sessions). The BASICS only cohort will also receive 4 sessions of "discussion only" to control for treatment time. Self-esteem and self-efficacy will be assessed pre- and post-intervention. It is expected that mindfulness training will significantly enhance reductions in high risk drinking, and increase self-esteem and self-efficacy outcomes. Study in progress, results in 2008.

Name: Maria Acosta

Major: Biology

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: Psychology

Project Title: "The relationship between language preference and anxiety among women of Mexican ancestry"

Faculty Mentor/s and department/s: Dellanira Valencia-Garcia, MA, PhC and Jane Simoni, PhD, University of Washington, Department of Psychology

Abstract:

Despite the historical presence of Latinos in the U.S, there's a lack of health data on Latinos at the national level. In recognizing the importance of mental health for all Americans, it's essential to ensure that the proper information regarding mental health penetrates all cultural barriers. Language barriers, a major concern for many Latinos, may drastically influence Latino's use of mental health services. My interest lies in examining how language barriers affect Latino mental health by exploring the relationship between language preference and anxiety among women of Mexican heritage. Increased acculturation, often measured as English-language preference, is equated with improved mental health, yet the Latino health paradox suggests the contrary. The present is a cross-sectional study targeting women of Mexican ancestry over the age of 18. Greater knowledge about language preference and anxiety among a specific cultural group is vital to providing culturally-appropriate mental health care and to understanding culture-bound syndromes seen in some Latino subgroups. By doing this I hope to better understand the relationship between language preference and anxiety.

Poster Abstracts

Name: Yared Ayele

Major: Informatics, Comparative History of Ideas

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Information Science

Project Title: "The Role of ICTs on Sustainable Development in Africa."

Faculty mentor/s and department/s: Professor Doug Merrel, Comparative History of Ideas (CHID), Professor Ylva Hernlund, Anthropology

Abstract:

The United Nation's Information and Communications Technology Task Force (ICT Task Force) and the World Summit on the Information Society (WSIS) were successful in promoting pertinent discussions about the many efforts to bridge the global divide, and place Information and Communications Technologies (ICTs) at the service of the world's citizens. There is a clear recognition by the international and academic community, however, that there is a need for civil societies in both developed and developing countries to be part of these discussions. My research is intended to spark these discussions on community level and among organizations involved in promoting global partnerships and collaborations. How does ICTs promote symbiotic partnerships and collaborations? How do these partnerships promote self-reliance and long-term sustainable development? How are these technologies empowering the youth and their communities by providing effective and efficient access to information? What are the new social, cultural and political opportunities and challenges that ICTs bring to developing communities in Africa? My research draws on an experience establishing a computer literacy program in a disadvantage township in South Africa. It is based on informal discussions, surveys and interviews with individuals, local and international organizations in Senegambia region of West Africa and Cape Town, South Africa.

Name: VaLiesha Brown

Major: Business Administration

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Public Policy, Law, Ethnic Studies

Project Title: "Multicultural Marketing Influences Among Non-Majority High School Students"

Faculty mentor/s and department/s: Raj Rakhra; Business, Marketing

Abstract:

Since the 2000 U.S. Census, the U.S. identified the growing percentage of minorities in the U.S.; the efforts to appeal to non-majority customers through multicultural marketing have increased drastically. Non-majority communities, namely these three, are being recognized by big company's advertising campaigns largely due to their respective increases in buying power of their community. Multicultural marketing campaigns are designed to attract non-majority consumers and are often used on products that have a youth appeal or premise. This study seeks to further explore the relationship between multicultural marketing campaigns and the non-majority communities they target with respect to high school students from these communities.

The underlying question of this study is how multicultural marketing is implemented in contrast to how multicultural markets would prefer to be reached. The methodology focused on a diverse group of high school students learning about marketing techniques then creating their own multicultural campaign for a luxury sports utility vehicle. In small groups, students worked to identify an advertising slogan, their target audience, their multicultural advertising strategy, and the vehicle's current marketing situation. Their decisions were self recorded and then analyzed.

The researched then selected trends and looked for similarities among students decisions regarding target audiences and their assessment of the current marketing situation in an effort to understand the influence of current multicultural marketing efforts.

Poster Abstracts

Name: Angeline Candido

Major: Communication

University Name: University of Washington

Year at University: Sophomore

Graduate Degree Interest: Speech Communication, Intercultural Communication

Project Title: "Filipino-American Youth: The Perception and Retention of the Tagalog Dialect"

Faculty mentor/s and department/s: Dr. Steve Woodard, Early Identification Program, McNair Scholars Program

Abstract:

This study focuses on Filipino-American youth perceptions of the Tagalog dialect. Currently, Filipinos are the second largest immigration group in the United States, with Tagalog being one of the major dialects spoken among them. My project examines the children of these Filipino immigrants and their fluency in Tagalog. In this study I surveyed 59 high school and college-aged individuals that were either born in the United States or have lived in the country for a majority of their lives. My work was guided by two main questions: (1.) Do Filipino-American youth feel any sort of pressure to be fluent in the Tagalog dialect? (2.) Is this fluency in Tagalog a marker of Filipino identity? Over the course of this study, a majority of the survey participants reported a desire to improve in their ability to speak Tagalog and some pressure from their parents to become fluent as well. The ability to speak Tagalog fluently became an important marker of Filipino identity. Participants often cited an importance of learning the language as it related to preserving culture and better understanding their ties to the Philippines.

Name: Natividad Chávez

Major: Psychology, Pre-Nursing

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: Nursing

Project Title: "Self-Reported Health and Anxiety among Mexican Women."

Faculty mentor/s and department/s: Dellanira Valencia-Garcia, MA PhD, Jane Simoni PhD

Abstract:

As the largest ethnic minority group in the United States, the number of Latinos is continuing to grow exponentially, especially for those of Mexican descent. Despite being the largest Latino subgroup research among Mexicans/Mexican Americans has not received much attention. Anxiety or *ataque de nervios* is literally translated as "attack of the nerves" and may be difficult to identify and diagnose among this population. We will examine the relationship between self-reported health and anxiety using two measures, the State Trait Anxiety Inventory (STAI) and the Ataque de Nervios scale. Using a cross-sectional study, two hundred women of Mexican descent, who are over the age of 18, and who reside in the Puget Sound area will be recruited. We hope to better understand culturally relevant issues in mental health among Mexican women.

Name: Karl Clapp

Major: Chemical Engineering

University Name: University of Washington

Year at University: Freshmen

Graduate Degree Interest: Physics/Astronomy

Project Title: "N-Body Shop Spiral Galaxy Simulations"

Faculty mentor/s and department/s: Chris Brook, Astronomy; Daryl Haggard, Astronomy

Abstract:

The N-Body Shop, a part of the Department of Astronomy at the University of Washington, works on designing and running software that enables high-performance computing on a variety of astronomy-related problems, including large-scale structure and galaxy formation. For my job I will be attempting to produce an image of a simulated galaxy. Then I will decompose the light in a variety of ways and repeat for a different view of the system. In the end I will compare the different measurements and also compare the measurements with what we already know. Some more specific goals of my project will be familiarizing myself with GALFIT in order to decompose the galactic images, assess how robust the derived parameters are, and to get some familiarity with the wealth of data in N-body simulations. GALFIT is an algorithm that analyzes the light profile of astronomical objects by fitting/decomposing them with one or more analytic functions. In general, the N-body shop simulations are amazing because they can tell us things that we would otherwise not know.

Poster Abstracts

Name: David W. Cookman

Major: Biology

University Name: University of North Dakota

Graduate Degree Interest: Biology

Project Title: "Effects of Prairie Fragmentation on Endemic Orthoptera"

Faculty Mentor/s and Department/s: David W. Cookman III with Dr. Brett J. Goodwin

Department of Biology, University of North Dakota

Abstract:

Habitat loss, and fragmentation, of prairie biomes has been increasingly affected by anthropogenic land use. The resulting habitat loss can have potentially dramatic influences upon endemic species. Orthoptera were trapped throughout 20 native prairie fragments in western Minnesota and eastern North Dakota in the summer of 2004. We identified Orthoptera to morphospecies. The shape, configuration, and diversity of fragments, and the surrounding landscape, was determined from aerial photographs. So far, we have calculated species richness and nestedness. Orthoptera richness ranged between 2-10 species. A low degree of nestedness was found throughout the community. Nestedness is a measure of how representative a subset of species is to the larger community. No correlations were found relating Orthoptera richness to measures of prairie and/or grasses in the landscape. Further analyses will yield information on how Orthoptera communities are related to other landscape variables.

Name: Cristina Domogma Arrizón

Majors: Spanish & Latin American Studies

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: International Relations with an emphasis in Human Rights

Project Title: "Mutual Benefits of Dual Immersion Programs"

Faculty mentor/s and department/s: Professor Anthony Geist, Chair of the Spanish & Portuguese Department

Abstract:

While most studies focus on the effect of bilingual education on immigrants, this study focuses on the potential beneficial impact implementing Spanish bilingual programs represents for the economy of this country; that is, how bilingual programs meet the demands of our capitalist system as well as the need for Spanish heritage speakers to incorporate themselves into the expanding global economy. Since, along with the international community, and in contrast to the lack of bilingual programs in this country, the Washington Department of Labor and Industries recognizes the importance of bilingual training through the programs it offers Spanish heritage speakers, the more specific purpose of this research is to identify the economic benefits of such programs in the Pacific Northwest. This study extends the investigations conducted by various historians and other academicians on the Pacific Northwest, utilizing, in particular, data collected by the Cervantes Institute. The research also deepens the investigation of Kim Potowski, father of *Fundamentos de la enseñanza del español a Hispanohablantes en los EE.UU.*, which does not include Hispanics inhabiting in the Pacific Northwest. *Lingüística aplicada a la enseñanza-aprendizaje del español como lengua extranjera*, by Isabel Santos Gargalo, serves as an additional source.

Name: Darlene Edgley

Major: Women's Studies

University Name: University of California Los Angeles

Year At University: Junior

Graduate Degree Interest: Sociology

Project Title: "Friends, Sister and Lovers: Examining Sociodemographic Disparities in Social Support among Breast Cancer Survivorship"

Abstract:

Health disparities or inequities have been brought into the nation's consciousness. A prominent and persistent disparity is the lower survival rate of African American women with breast cancer compared with their white counterparts. Breast cancer risk is thought to be higher among lesbians than heterosexual women, in part because of their higher rates of obesity and lower rates of fertility. Social support has been found to be a protective factor for all breast cancer survivors. The availability, sources, influences on and quality of social support for lesbians with breast cancer within their communities has not been well-studied, particular among African Americans. This study aims to compare social support vehicles available to and utilized by African American lesbians to those of African American heterosexual women and white lesbians. Two main questions guide this work: (1) Do African American lesbians define themselves as the outsiders in heterosexual cancer support groups and white lesbian support groups; and (2) What are the similarities and differences between African American lesbian breast cancer survivors' social support networks and those of African American heterosexual and white lesbian survivors?

Poster Abstracts

Name: Martín Escandón

Major: Spanish

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Cell and Molecular Biology

Project Title: "Developmental basis of juvenile striping in threespine stickleback fish."

Faculty mentor and department: Dr. Katie Peichel, Biology

Abstract:

Understanding the links between genetics, development, and morphological variation is a driving impetus in contemporary evolutionary biology. Juvenile pigmentation in the three spine stickleback, *Gasterosteus aculeatus*, is one potential system to study these links. Marine populations and some freshwater populations of sticklebacks show differential striping patterns in the first 8 weeks after hatching. Marine fish do not exhibit conspicuous vertical stripes while some specific freshwater populations do. It is hypothesized that juvenile striping could play a role in crypsis and could have developed in freshwater populations as a response to a predation pressure not present in the ancestral marine environment. In this work, a representative marine and freshwater population have been chosen and scored as to their degree of striping. Lab-reared crosses were scored for the presence of stripes and used to determine the heritability of the stripe phenotype. Next, F1 and F2 intercrosses were generated for genetic linkage analysis, which will be used to uncover the correlation between genotype and stripes. *In situ* hybridizations are being performed on fish from early developmental time points up to 4 weeks post-hatch to determine whether the expression of candidate genes thought to be important in pigment development correlates with the presence or absence of the striping patterns. Results of the developmental studies will be presented.

Name: Edgar Flores

Major: Environmental Science & Resource Management, American Ethnic Studies

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Environmental Science, Restoration Ecology, Environmental Justice

Project Title: "Shallow runs the water: An environmental and cultural history of the Yakima watershed."

Faculty mentor/s and department/s: Dr. Devon Peña, Anthropology, American Ethnic Studies, Program on the Environment

Abstract:

The proposed research project has two objectives: the first is ecological and the second is sociological. My first objective is to develop a set of materials for an environmental history of the Yakima River watershed. This aspect of my study is concerned more specifically with the impact of human-induced environmental change on salmon habitat and populations. This environmental history will require that we examine the water supply of an arid environment and how the Yakima River watershed has changed over the past century. The second objective is to conduct a comparative sociological study of the environmental perceptions of Yakama, Anglo, and Mexican-origin communities. I am concerned with perceptions of environmental protection and disparate views of the ecological changes affecting salmon habitat and watershed integrity. I will focus on the impact that agricultural water use has had on salmon and other fish populations and their habitat in the Yakima Watershed. The study will review existing historical, governmental, tribal, and scholarly literatures dealing with the environmental history of the Yakima watershed. The study will also involve in-depth structured interviews and more informal ethnographic interviews with informants from each of the three dominant cultural/ethnic groups. The objective is to outline the social and environmental history of the area and to develop materials that will allow us to assess cultural differences in environmental perceptions.

Poster Abstracts

Name: Rachel Gillum

Major: Political Science

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: Political Science, Public Policy, International Security

Project Title: "The Rapid Transformations of Terrorist Financing"

Faculty mentor/s and department/s: Jonathan Mercer, Ph.D., Political Science

Abstract:

Following the events of September 11, 2001, combating terrorism finance has remained at the forefront of U.S. priorities in the war on terror and has proved to be a central tool in disrupting terrorist operations and networks. The focus of this study is to investigate how terrorist groups are able to evolve in response to punitive measures against them, proactively work to evade existing sanctions, and minimize the impact of future ones. Prior to the attacks, a main source of financing for Muslim terrorist organizations was donations from Islamic charities and wealthy individuals with an expressed intent of supporting terrorists. Additionally, other charities have been used to siphon money away from humanitarian goals and funnel funds to terrorist groups. The United States and many European and Middle-Eastern governments have implemented strategies to stop the transferring of money to terrorist groups through formal banking systems, and have accomplished many of the goals they have laid out. By monitoring the seemingly successful results of these efforts by the U.S. and its allies, I aim to identify why terrorist groups today are still well financed and supported, yet increasingly inconspicuous. Their activities have been difficult to follow because of the increasing alternative financial mechanisms to covertly earn, move, and store their assets. It is vital that the United States intelligence community maintains a clear understanding of the source of terrorist organizations funding and means of transferring funds in order to restrict their ability to operate in the global commons.

Name: Nicholas C. Gomez

Major: Molecular, Cellular, and Developmental Biology

University Name: University of Washington

Year at University: Sophomore

Graduate Degree Interest: Genome Sciences

Project Title: "Electrical Potential at the Ice-Water Interface"

Faculty mentor/s and department/s: Dr. Gerald H. Pollack, Bioengineering

Abstract:

Water is one of the fundamentals of life, yet little is understood about its properties. A phenomenon that is very poorly understood is the "exclusion zone." This zone, which has been found next to hydrophilic surfaces such as Nafion, has been shown to exclude solutes such as carboxyl microspheres a distance of over 400 microns. We hypothesize the structure of this zone to be not water but a polymer of hydrogen and oxygen filled with hexagonal structures that create a negative potential due to unbalance of hydrogen and oxygen atoms. Since such structured water is analogous to ice, there is good likelihood that it might be found adjacent to the surface of ice. We hypothesize that due to the negative potential associated with the hexagonal structure there should be evidence of this at the ice-water interface. The experiment was set up using glass microelectrodes filled with 3M KCl solution. A chamber was constructed and the bottom layered with ice. Then pure water was added and an actuator was used to steadily lower the microelectrode toward the ice surface at a constant velocity through the solution until the microelectrode tip was broken by the ice. The results are fascinating. We were able to in fact establish that there was a negative potential at the ice-water interface. This is one step closer to proving that this hypothesized hexagonal structure does exist.

Name: Karina Grajeda

Major: English, literature

University Name: Boise State University

Year at University: Sophomore

Graduate Degree Interest: English, modernist and postmodernist studies

Project Title: "Man as the Antithesis of Nature in Joseph Conrad's *Heart of Darkness*: An Ecocritical Study"

Faculty mentor and department: Dr. Cheryl Hindrichs, English

Abstract:

This study will apply ecocritical theory in order to examine the role that nature plays in relationship to humanity in Joseph Conrad's *Heart of Darkness*. I argue that Conrad's juxtaposition of images of nature with images of Kurtz, who is a personification of the imperialist model of human civilization, represents humanity as the antithesis of nature, the other. The purpose of this study will be to illustrate how Conrad makes use of imagery in *Heart of Darkness* as a method of exposing humankind's injurious relationship with the natural world.

Poster Abstracts

Name: Gary Grogan

Major: Psychology

University Name: Boise State University

Year at University: Junior

Graduate Degree Interests: Clinical Psychology

Project Title: "The Relation between Attachment with Opposite Sex Parents and Attachment with Romantic Partners"

Faculty Mentor and Department: Dr. Mary Pritchard, Psychology Department

Abstract

This study examines the relation between attachment styles with opposite sex parents and attachment styles with romantic partners. Previous research has indicated that attachment styles with parents closely resemble attachment styles with romantic partners (Hazan & Shaver, 1987). However, little research has examined whether the attachment style to the mother or father is most predictive of attachment styles to romantic partners, and whether this varies by gender. The present study will survey 300 college students about their attachment styles to both parents, as well as romantic partners. The hypothesis is attachment styles with opposite sex parents will be significantly related to attachment styles with romantic partners. Moreover, this study can provide an important contribution to the understanding of how trust, communication, and alienation are influenced in adult romantic relationships.

Name: Ellen Harju

Major: Chemistry

University Name: University of Washington

Graduate Degree Interest: Chemistry

Year at University: Senior

Project Title: Photostability of Organic Molecules on Mars

Faculty Mentor: Pamela Conrad, Jet Propulsion Laboratory, California Institute of Technology

Abstract:

It is unclear whether or not Mars possesses indigenous organic molecules; however, meteorites deliver a significant organic load to the Martian surface on an annual basis. The Viking mission did not detect organic molecules on Mars and it is still unclear why it did not. It is thought that organic molecules may be photolytically degraded on the Martian surface to carbon dioxide and other oxidized products. Benner et al. have proposed a mechanism for how organic molecules, including polycyclic aromatic hydrocarbons (PAHs), may be oxidized on Mars based on experiments conducted in Earth conditions. In this reaction pathway aromatic rings become benzenecarboxylic acids. We have irradiated the polycyclic aromatic hydrocarbons phenanthrene and pyrene with a deep ultra violet laser induced native fluorescence instrument to determine if any molecular changes occur under this light source. We are interested in whether these molecules follow the oxidation pathway proposed by Benner et al. Preliminary results indicate that phenanthrene has photolytically degraded under the ultra violet light, while pyrene did not.

Name: Bryan Hickerson

Major: Computer Science

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Computer Science

Project Title: "A Visualization of Text Runner Search Results"

Faculty mentor/s and department/s: Dr. Oren Etzioni, Computer Science and Engineering

Abstract:

TextRunner is an implementation of Open Information Extraction, which is a system that is able to extract relationships between objects through data sources, such as the web, without any human input. This project is to exploit the interconnected nature of these results to display the search results in a way that is intuitive and easily navigable. The multidimensionality of this data naturally lends itself to a visual representation rather than the typical "list of links" that is what is generally associated with search results today. To achieve this we dynamically fetch data from TextRunner and display it graphically using the prefuse data visualization toolkit. This presentation will show what the visualization can do and how it is achieved.

Poster Abstracts

Name: Chanaye Jackson

Major: English

Year at University: Junior

Graduate Degree Interest: English

University Name: University of Washington

Title of Presentation: A Preliminary Analysis of Nutritive and Nonnutritive Sucking Habits in Patagonian Children

Faculty Mentor: Annette Fitzpatrick, Research Assistant Professor, Department of Epidemiology

Abstract:

The time an infant spends sucking, either for nutritive or nonnutritive purposes, may later influence the development of the mouth and palate and potentially be associated with speech pathology. The purpose of this study was to provide preliminary data on type and length of sucking behavior in relation to speech problems in pre-school children residing in Patagonia, Chile. Self-reported questionnaires were completed by parents and children received speech tests and orofacial exams. The 26 children were a mean age of 4.3 years (SD 0.8) and 17 were boys. Breastfeeding ended at an average age of 12.5 months. The average age for starting and stopping bottle feeding was 6.7 and 29.3 months. Only 42.3% had used a pacifier. Adjusted for child's age, mother's education was associated with speech problems. The length of breast and bottle feeding were not related to pathology in this small sample. A larger study is underway.

Name: Pamela James

Major: Social Welfare

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Public Health/ Medical Anthropology

Project Title: "Comparing the Effectiveness of Culturally-based Treatments and Biomedical Services for Chronic Illness in American Indian and Alaska Native Urban Populations."

Faculty mentor/s and department/s: Dr. Nancy Nystrom, Social Welfare

Abstract:

Background. While there has been a growing literature confirming the importance of integrating traditional Indian healing (TIH) to treat chronic illness in Native American and Alaska Native (AIAN) populations, few studies are specific in examining its prevalence, or to what degree urban clinics combine TIH with biomedicine. Although many urban clinics are working towards increasing the delivery of culturally appropriate care, their efforts are exasperated by a variety of obstacles that prevent the development of infrastructure to support these models, with constant cuts in federal funding leading the way. The growing urban Indian population has resulted in a supply and demand dilemma of TIH in urban health care settings. As a result, a reliance on biomedical services that bear no cultural consideration has developed. Also, because urban Indians have long been ignored in mainstream health research, more studies focusing on the healthcare needs of this population are necessary. *Methods.* This study will combine both qualitative and quantitative methodology to examine both the actual and perceived health status of urban Indians who utilize both biomedical services and TIH. *Conclusion.* Findings from this study can be used to help guide policy makers working in the public health realm towards more favorable public health policy formation, specifically in regards to increased federal funding for urban public health clinics.

Poster Abstracts

Name: Sarah Landsem

University Name: University of Dakota

Year at University: Senior

Graduate Degree Interest: Occupational Therapy

Project Title: "A Comparison of Shoulder Motion to Daily Living Participation Among Mature Adults"

Faculty Mentor/s and department/s: Dr. Jan Stube, Department of Occupational Therapy, University of North Dakota

Abstract:

The intent of this project is to analyze existing, de-identified data to note comparisons between older adults' shoulder active range of motion measurements, age, gender, and hand dominance with daily activity participation and presence of shoulder pain. The overall research hypothesis is that the greater the shoulder motion, the more active participation level will exist. Descriptions and associations among the various factors will be presented. The expected outcomes of this project will be the greater understanding of the connection between human motion and activity participation to add to the occupational therapy clinical knowledge base and for purposes of further research planning.

Name: Carmel Laurino

Major: International Studies (Asia), Political Science

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Law, Southeast Asian Studies, Public Health, Education

Project Title: "Filipinos of UW in the Early 20th Century: Reconstructing Transnational Legacies and Rediscovering a "Forgotten" Past."

Faculty mentor/s and department/s: Dr. Vicente Rafael, History

Abstract:

This research examines the historical presence of Filipino students at the University of Washington. Under U.S. colonial rule, education was deployed in the Philippines as an apparatus for the pacification of the colonial subjects and their socialization by American instruction. While Philippine society underwent a pedagogical acculturation to the English language and Western standards and practices, a select number of Filipino students were given the opportunity to study in the continental U.S. After obtaining college degrees and certification, these students would return to the Philippines and go on to occupy influential roles in civil society. The University of Washington, one of several schools that received government sponsored students from the Philippines, also saw the enrollment of many Filipino students who had to work while going to school. While on school breaks these self-supporting students labored on farms and in the Alaska fish canneries. Away from the university they organized into unions, while on campus they formed clubs and communal spaces that would prefigure and seed later organizations in the Seattle and University of Washington community. Filipinos as imperial subjects in the early twentieth century have left traces of legacies both in the Philippines and in the United States. Our project aims to track the emergence of Filipino individuals and communities by exploring archival materials available through the UW Special Collections and the interlibrary loan system, as well as oral histories and Filipino Student Bulletins from the Filipino American National Historical Society.

Poster Abstracts

Name: Deidre-Evelia Lockman

Major: International Studies

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Political Science

Project Title: "Post-Franco Spain: A Study of Amnesty Laws in a Transitional Government"

Faculty mentor/s and department/s: Prof. Gadi Barzilai, Jackson School of International Studies

Abstract:

This paper will examine how a transitional government deals with the legacies left by the incumbent dictatorial regime and its impact on the process of democratic reconstruction.

Do spheres of influence change dramatically when an authoritarian regime transitions, without major conflict, to democracy? In the case of Spain did The Falange (nationalist political party that Franco endorsed during his tenure as dictator, National Army, and Catholic Church cease to be of importance or did these organizations allow for cosmetic changes to take place while still holding power? This is an important question because during the late twentieth century many previously authoritarian regimes transitioned to democracy without major conflict: South Africa, neighboring Portugal, and Greece. And with the collapse of the Soviet Union many Eastern European countries were simply forced to transition. *Hypothesis a (based on Marxist Theory):* That the main components of Franco's regime (the Falange, National Army and the Catholic Church) played a major role in the transition government and were able to maintain substantial power after the transition to democracy. *Hypothesis b (based on Cultural Theory):* The remnants of Franco's regime (The Falange, National Army and the Catholic Church) lost their grip on power and ceased to play a role in the Spanish government after Spain's transition to democracy because of cultural changes that occurred in Spain during Franco's regime.

Name: Carol McHann

Major: Criminal Justice & Social Science

University Name: Boise State University

Year at University: Senior

Graduate Degree Interest: Gender Studies with an emphasis on Feminist Criminology

Project Title: "Out of the Closet or Under the Rug: An Analysis of Domestic Violence within Same-sex Relationships in the State of Idaho"

Faculty mentor/s and department/s: Dr. Lisa Bostaph, Criminal Justice

Abstract:

To date, there have been a limited number of studies that focus on the events of terror and injury, identified as domestic violence, as it occurs within the lives of homosexual couples. Through a review of academic articles and an analysis of government statistical data, this paper will address the prevalence of reported incidents of domestic violence within same-sex couples in the state of Idaho as compared to those reported nationally. The prevalence of such events should be explored and evaluated to enable the enactment of programs to educate the police, professionals, and the public on the similarities between domestic violence within same- and opposite-sex relationships.

Poster Abstracts

Name: Angelica Mendoza

Major: Psychology

University Name: California State University, Dominguez Hills (CSUDH)

Year at University: Senior

Graduate Degree Interest: Educational Psychology

Project Title: "The effects of mathematics self-efficacy on academic outcomes among college students in developmental math courses."

Faculty mentor/s and department/s: Dr. Larry D. Rosen, Psychology

Abstract:

According to Bandura's Social Cognition Theory, self-efficacy is defined as an individual's judgment of his or her ability to execute a particular [mathematics] task successfully. The purpose of this study was to examine the effects of mathematics self-efficacy on academic performance among college students enrolled in developmental math course based on three research questions: (1) How does mathematics self-efficacy of college students affect their academic performance? (2) Does mathematics self-efficacy change over time during a developmental math course? (3) What factors shape the mathematics self-efficacy of college students enrolled in these developmental math courses? Participants were undergraduate students (N=24) enrolled in a developmental math course during the summer 2006 at California State University, Dominguez Hills (CSUDH). A pre-and-post "Math Survey" was administered using a modified version of Mathematics Self-Efficacy Scale (Betz & Hackett, 1983) and additional subscales referring to math related experiences. Findings indicated no differences between mathematics self-efficacy and the overall course grade. However, there were significant gains in math self-efficacy from the beginning to the end of the course. Moreover, factors such as participation in class and tutor as a role model were found to influence mathematics self-efficacy. Such findings indicate that these factors should be made part of developmental math courses to enhance math self-efficacy of college students.

Name: Christopher John Monfort

Major: Law Society and Justice

University Name: University of Washington

Year at university: Senior

Graduate Degree interest: History/Political Science

Project Title: " The Power of Citizenship your Government doesn't want You to know about. How to change the inequity of the Criminal Justice System immediately, through Active Citizen Nullification of Laws, as a Juror

Faculty Mentor/Department: Dr. Katherine Beckett, Political Science

Abstract

This study seeks to illuminate and further the relatively unknown legal scholarship of Professor Paul Butler, in the area of Jury Nullification. My objectives are three fold. **(1.)** To explain in detail what jury Nullification is. **(2.)** Inform fellow citizens as to the history of Jury Nullification both Conceptual and Actual. **(3.)** Give clear succinct descriptions of a Citizens Rights, Duties and Protections with regards to effectuating change, through said Jury Nullification. I believe that once citizens are enlightened as to the extent of their individual power. These enlightened citizens cannot help but spread their knowledge to others, effectuating positive change at an exponential rate. Much like the elation and excitement of the young eaglet, that realizes it can fly for the first time.

Poster Abstracts

Name: Michael Motte

Major: Astronomy

University Name: University of Washington

Year at University: Freshman

Graduate Degree Interest: Astronomy

Project Title: "Simulation of Galaxies"

Faculty mentor/s and department/s: Chris Brook, Astronomy

Abstract:

Astronomy is one of the few fields of science that presents a challenge in the form of most theories cannot be tested here on the earth. Therefore, it is helpful for scientists in research groups such as the N-Body Shop at the University of Washington to develop high resolution simulations of galaxies. These simulated galaxies are becoming increasingly sophisticated, and follow processes such as gas cooling, star formation, supernova feedback, and metal enrichment, all within a cosmological context. The software package Sunrise takes information about stellar ages and metal composition from the simulation, as well as modeling the effects of dust, to make mock observations in the wavebands of major telescopes, such as the HST, or SDSS. We will run Sunrise on our simulated galaxies, and perform analysis of the simulations as if we were observers. This allows various assumptions applied by observers to be tested, as we have the full knowledge of the history of the galaxy we are "observing". In particular, we will examine the effects of dust and inclination angle on the derived galactic parameters.

Name: Vi L. Nhan

Major: International Studies, Political Science

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Public Policy, International Affairs

Project Title: "Press Freedom in China: A Comparative Analysis of Newspaper Coverage of Labor Disputes."

Faculty mentor/s and department/s: Dr. Susan H. Whiting, Political Science

Abstract:

Freedom of the press is essential to democracy and human rights. Though cultural and developmental distinctions do impact media flows within a country, repression of media by its government is a violation of that basic human right. China, governed by the Chinese Communist Party, has had one of the most restricted media in the world. The government censors all venues of media to maintain its monopoly on power and information while pushing ambitious economic modernization reforms. However, there have been signs of liberalization and marketization of the media in response to these reforms. This research investigates whether or not liberalization in Chinese press is a genuine transformation or simply a change in state control. Besides focusing on the legal, political, and economic structures in which Chinese media exist, the research method will also follow the portrayal of labor disputes in the press. This will involve a comparative analysis of labor disputes coverage in 2000 between the two different sources of information available to the readers, an official and a semi-commercial newspaper, in the Shandong Province. The research method will utilize content analysis to objectively and systematically identify specific characteristics of messages that would denote the degree of editorial/journalistic freedom. The hypothesis is that though semi-commercial papers have more leeway in reporting this controversial topic, much of the semi-commercial newspapers are still subjected to state control.

Poster Abstracts

Name: Stephanie Parisien

Major: Psychology

University Name: University of North Dakota

Year at University: Senior

Graduate Degree Interest: Clinical Psychology

Project Title: "Increasing Tolerance of Human Diversity in a College Classroom Setting."

Faculty mentor/s and department/s: Dr. April Bradley, Psychology

Abstract:

This study empirically evaluated changes in attitudes towards cultural diversity and tolerance of human diversity related to a novel cultural awareness component added to a university psychology class. 210 participants taking a lower division Developmental Psychology class participated in the study. In the experimental group, there were 80 participants who received the cultural awareness component as part of the lab section class. In the control group, there were 130 participants who were enrolled in a separate section of the Developmental Psychology class during the same semester and did not receive the cultural awareness component. The cultural awareness component consisted of group discussions and exercises that focused on family practices across cultures, differences in beliefs and rituals, and how those beliefs and rituals develop in individuals. Students actively engaged in small and large group discussions on the various cultural awareness topics. Preliminary results indicate significant changes in the experimental group, with those receiving the cultural component, exhibiting an increase in tolerance of human diversity and a decrease in stereotype adherence towards African Americans. Limitations of the current study and future research directions are discussed.

Name: Chereese Phillips

Major: Sociology

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Social Work

Project Title: Casey Field Office Mental Health Study.

Faculty mentor/s and department/s: Peter Pecora (PhD Social Work), David Takeuchi (PhD Sociology and Social Work), Catherine Roller White (M.S.) Lovie Jackson (Doctoral Candidate Social Work).

Abstract:

The objective of this research is to understand the processes by which Casey Family Programs adolescents, currently in comprehensive foster develop their ethnic identity. Due to the transitory nature of foster care and limited resources, few investigational studies have been conducted. As a result longitudinal studies pertaining to foster care and ethnic identity are virtually non-existent. Presently, as has been the case in the past, there hasn't been much emphasis given to their ethnic identity development by researchers or care providers, which is extremely significant because children of color have unique racial socialization needs. Their ability to successfully transition from one cultural environment to another varies. This is the beginning of a longitudinal study that seeks to track the youth's ethnic identity development over time. 188 13-17-year-old adolescents currently in foster care participated in a 90 minute in-person interviews. The University of Michigan conducted the interviews; the mental health section of this survey required 60 minutes, while youth demographics, spirituality, ethnic identity and sexual identity comprised the other 30 minutes. The survey utilized questions from an existing measure of youth ethnic identity, the "Multiethnic Identity Measure," and other questions designed to address the influence of foster care on ethnic identity, its development, and experiences of discrimination and violence in foster families. Thus far results are preliminary.

Poster Abstracts

Name: Christina Rainey

Major: Psychology

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: Education & Clinical Psychology

Project Title: "African American Adolescent Depression: A Literature Review"

Faculty mentor/s and department/s: Dr. Mary Larimer & Briana Woods M.S. Department of Psychology, University of Washington

Department of Psychiatry and Behavioral Sciences, University of Washington

Abstract:

Adolescent depression can be manifested in many different ways and can be a result of a variety of factors (i.e. biological, environmental,) (Department of Health and Human Services; CMHS, 1998). The complexity of adolescent depression is being investigated, but there is an overall lack of empirical studies specifically focused on underrepresented populations. Currently, there is a need to examine depression among African American adolescents, due to limited studies and an inconclusive literature (Hammack 2003; Repetto, Zimmerman & Caldwell, 2004). The etiology of African American adolescents' depression is unclear and there are few studies that address this topic (Hammack, 2003). In order to most effectively treat African American adolescents who experience depression a greater understanding of both the etiology and manifestation of this disorder is necessary. The current study aims to examine the current literature on adolescent depression, with a specific focus on African American adolescent depression. The aim of the current study is to develop a greater understanding of the risk and protective factors involved in the development of the depression among African American adolescents as well as how depression is exhibited among these youth. This is a critical first step in designing effective intervention programs for this population.

Name: Nicole Savini

Major: Sociology

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Education

Project Title: "Sports and crime: An analysis of the Effects of Athletic Participation on Juvenile Delinquency."

Faculty mentor and department: Professor Joseph Weis, Sociology

Abstract:

This study examines the extent to which athletic participation affects a student's propensity toward deviance. Specifically, this current inquiry seeks insight into whether interscholastic sports decreases juvenile delinquency among youth participants. For the purposes of this study, I use data from the National Longitudinal Study of Adolescent Health to test the effects of sports involvement on delinquency among youth in grades 7 through 12. Further examination of these domains will help to define the role of sports in society and whether athletics can be used as a preventative measure in the fight against crime.

Poster Abstracts

Name: Jamil E. Suleman

Major: American Ethnic Studies(AES), Comparative History of Ideas (CHID)

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Law

Project Title: "Truth from the Youth"

Faculty mentor/s and department/s: Dr. Steve Woodard, Office of Minority Affairs

Abstract:

The "Truth from the Youth" campaign is a project of my creation that is used to facilitate social change through the arts. With the idea of poetry as catalyst for empowering youth, I have been able to create workshops with the purpose of utilizing the innate creativity of the youth as a way to express their current situations in life. By targeting communities that are generally disadvantaged or marginalized by societal structure, this project allows the voice of the voiceless to be heard. I have gathered poetry from kids in High Point Seattle, which comprises of a high immigrant population and lower-income status. Plagued by gang violence and drug dealing, this neighborhood is policed in a destructive way, thereby leading to an exponential growth in at-risk situations. By working with youth in this area, the poetry project allows them to express their emotions in an honest and healthy way. It also allows youth to connect internationally. By participating in the Cape Town, South Africa study abroad program, I was able to showcase the poems of kids in Seattle to kids in Cape Town living under similar situations. This has formulated into a "pen-pal poetry" type project which has led to a possible global campaign by using the form of poetry as expressive empowerment with the hopes of motivating communities to create and foster an environment for constructive social change.

Name: Neb Tadesse

Major: Computer Science

University Name: University of Washington

Year at University: Senior

Graduate Degree Interest: Computer Science

Project Title: "Multiple Mice for Computers in Education in Developing Countries"

Faculty mentor/s and department/s: Prof. Richard Anderson

Abstract:

Digital StudyHall (DSH) is research collaboration between computer scientists and education experts seeking better classroom environment using cost-effective technological tools in rural India. The research addresses the issue of not having enough educated teachers in rural areas of the developing world. The DSH research takes several different approaches to deal with this problem. One aspect of the research is to record a video of well qualified teacher in cities and distribute the recording to schools in rural and slum part of India. The materials are shown by facilitators using low cost replay facilities. We are developing educational application for use in DSH using the Multimouse (MM) technology. The MM system gives each student a multiple mouse and cursor in the screen, multiplying the amount of interaction per student per PC with an additional cost of mouse. The idea is to introduce a facility for allowing the audience members to interact with the electronic materials. We are creating a demo application to integrate interactive ways of learning with the DSH and also to show how MM can be used for educational purpose. We believe this technology would increase the learning value and also introduce a collaborative way of study among students.

Poster Abstracts

Name: Simon Tu

Major: Political Science

University Name: Boise State University

Year at University: Senior

Graduate Degree Interest: Political Science-International Relations, Political Economy

Project Title: "Globalization and the American Income Gap: Assessing the Impact of Liberal Economics and Illegal Immigration on Inequality."

Faculty mentor/s and department/s: Dr. Ross E. Burkhardt, Political Science

Abstract:

Despite enjoying the most rapid economic growth of all large industrialized nations, inequalities in the distribution of income have grown faster in the United States than in most developed nations since the late 1960s. Previous empirical analysis of globalization and income distribution focused on a mix of international economic openness and domestic politics. This study will assess the impact of international integration on the American income gap through an empirical examination of liberal economic policies and illegal immigration. By examining the three major modes of international capital mobility—trade, direct investment, and financial flows—as well as international labor mobility—illegal immigration, the study will respond to the claim that America benefits from globalization.

Name: Chloe Valencia

Major: English

University Name: University of Washington

Year at University: Junior

Graduate Degree Interest: English, Education

Project Title: "The Biracial Narrative: An Examination of Identity Development"

Faculty mentor/s and department/s: Lysa Rivera, English

Abstract:

Danzy Senna and Zadie Smith are contemporary biracial women novelists. Senna writes about the biracial experience in the United States with novels *Caucasia* and *Symptomatic*. Smith writes about the experience in England with *White Teeth* and *On Beauty*. Both writers have one black and one white parent; consequently, their personal and biracial character's social struggles are similar. The biracial identity struggle is centralized in examining each novel on its own, and then in the context of each author's autobiographical information. Their identity struggle stems from the inability to identify with simply one race. The clash between social interactions and introspective thoughts come in contact, challenge and influence each other creates an identity conflict. While social interactions influence identity, the process of self-identification is one made within oneself. Critical race studies examine this problem broadly and extensively, the construction of identity crisis in a fictional narrative clearly exhibits one character's struggle in their particular microcosm within the novel. In fiction, a writer can draw from personal experience and construct empathies and cohesiveness through their characters. The identity problem is no longer abstract; it is comprehensible given the restraints of setting and character in a novel. I will examine narrative voice; the perspective of events and thoughts presented in the novel to conclude that ultimate the identity struggle must be resolved through an introspective and future oriented goals for their identity.

Poster Abstracts

Name: Audra Vincent

Major: American Indian Studies and Linguistics

University Name: University of Washington

Year at University: 4th year Senior

Graduate Degree Interest: American Indian Studies and Linguistics

Project Title: "What are Native Tribes of the Northwest Doing to Revive their Languages?"

Faculty mentor/s and department/s: Dian Million, Assistant Professor of American Indian Studies.

Abstract:

This project consists of interviews of people involved in language revitalization from their own tribes. The interview is used to gain basic information about how the language is doing and what types of programs the tribe offers to produce new speakers and language learners. There is little if any information available on the state of Native languages in the northwest. What is written is not current and there is no guarantee of its accuracy. Most information available categorizes many of the Native languages of the northwest as extinct or nearly extinct with no further information. I don't believe in the possibilities of a language becoming extinct or dead. A language can be in a changing state. The languages in the northwest are not extinct. They have speakers who are working to teach the younger generations. This project will be an ongoing project after this conference. I plan on interviewing as many tribes as possible in the northwest. The information I will present will be on the number of speakers and the types of programs these tribes are doing to revive their languages. These languages and the information that I will find with this research is important for the Native languages in this country and the indigenous languages across the world. Many indigenous languages across the world are categorized as extinct. Information on other people who are working on revitalizing their languages is important to show that it is possible for "dead" language to come back to life.

Name: Fred Waweru

Major: Social Science

University Name: Boise State University

Year at University: Senior

Graduate Degree Interest: Refugee Studies/International Studies (with international development mainly in Africa) Related social science fields

Project Title: "The study of difficulty in adaptation to Diaspora societies that are faced by refugee immigrants from third world countries"

Faculty mentor/s and department/s: Dr. Steve Patrick, Sociology

Abstract:

This study will investigate the assimilation difficulties to the contemporary American lifestyle faced by Somali Bantu refugees resettled in Boise, Idaho. This refugee population has not become self sufficient even after being in the United States for three years, as compared to refugees from other countries who become self-supportive within as little as 6 to 8 months. The study will analyze Bantu refugee responses to a survey administered and translated in their native language. These responses will be compared to information collected by other refugee resettlement agencies who host Somali Bantus. This study will contribute a better understanding of the assimilation difficulties that Somali Bantu refugees face in the United States and will help resettlement agencies better serve this population.

UW Student Accomplishments

Alula Asfaw is a recipient of the 2007 Truman Scholarship.

VaLiesha Brown was accepted to Masters in Public Policy programs at University of Michigan and University of Washington, as well as the University of Wisconsin Law School.

Cristina Domogma has been named an Institute for International Public Policy Fellow and will be attending the Public Policy & International Affairs Junior Summer Institute at the University of California – Berkeley. She will be studying abroad next year in Guadalajara, Mexico.

Edgar Flores received a Multicultural Alumni Partnership Alfredo Arreguin Scholarship and a National Action Council for Minorities in Engineering (NACME) Scholarship.

Ismenia Gaviria is currently studying abroad in Ioannina, Greece. She has also been accepted to the University of Chicago Summer McNair Program.

Rachel Gillum was accepted to the Ralph Bunche Summer Institute at Duke University for summer 2007 and the Cyprus Study abroad program for Summer 2007.

Ellen Harju will attend UCLA in the fall, on her way to a PhD in Chemistry. She was awarded the Dorothy Radcliffe Dee Fellowship and a University Fellowship. She is also a winner of the NASA Harriet G. Jenkins Pre-Doctoral Fellowship.

Bryan Hickerson was accepted to the Georgia Technical University program in Computer Science and will start his PhD work this fall. Bryan received a GEM Fellowship and will be working for IBM this summer.

Pamela James was accepted to the M.P.H./Ph.D. program offered through the department of Epidemiology and Biostatistics and the department of Anthropology at Case Western Reserve University.

Deidre Lockman has been accepted to the European Union Summer Program in Brussels, Belgium.

Shantel Martinez was awarded a Mary Gates Research Scholarship, and studied abroad in Cape Town, South Africa this past winter. Shantel is a recipient of the 2006/7 EIP Presidential Scholarship.

Susan Massey was accepted into the Amgen Scholars Program in Washington for summer 2007.

Chereese Phillips was accepted to Masters of Social Work programs at University of Washington, University of Illinois Urbana-Champaign, and Columbia University.

Maiensy Sanchez was accepted to the Masters in Anthropology program at Columbia University.

Audra Vincent received a Mary Gates Research Scholarship, and traveled to Rome with the OMA Study Abroad program.
EIP Student Accomplishments

Parwiz Abrahimi will be a Postbaccalaureate Intramural Research Training Award (IRTA) Trainee at the National Institute on Aging/National Institutes of Health after he graduates this year. He has received a Mary Gates Research Scholarship and is a recipient of the OMA/Boeing Scholarship.

Emilia Borgatta was accepted to four graduate programs, and will be attending American University this fall for the Master's Program in Foreign Policy with the School of International Service. She received a High Achievement (Dean's Award) Scholarship and a paid faculty research assistantship.

Rachel Carter will be interning for Congressman Adam Smith this summer in Washington DC.

Chanelle Chin received a 2006/2007 Zesbaugh Scholarship.

Annabel Cholico participated in the OMA Rome Study Abroad program and was an OMA Endowed Scholarship Recipient.

UW Student Accomplishments

Grace Cochon will be serving in Micronesia with the US Peace Corps, teaching English and doing community development. Grace is a recipient of the 2006/7 EIP Presidential Scholarship.

Lauren Delgado received a Business School Scholarship and has accepted a job offer at Microsoft Business and Marketing Organization.

Kimberly (Evans) Harden was accepted into the Extended Degree Master's of Public Health Program at the University of Washington. Her emphasis will be Health Services, specifically health communication and education.

Sunshine Eversull was accepted into the Seattle University School of Law.

Marques Gittens was accepted into the Teach for America program. He will be working on special education in the San Francisco Bay Area.

Leoule Goshu will attend the Harvard University JFK School of Government in the fall, focusing on her Masters in Public Policy and Urban Planning. As a 2003 Carnegie Mellon Public Policy and International Affairs Fellow, she will receive full tuition and a 10,000 stipend each year. She will also attend the 2007 University of Arizona Summer Research Institute.

Kristi Govella (class of '05) is a Ph.D. student in Political Science at the University of California – Berkeley. She received the Eugene Cota Robles Graduate Diversity Fellowship and the Beinecke Scholarship, and was an intern with the U.S. Department of State, Bureau of East Asian & Pacific Affairs.

Anna Hoover will begin graduate work in the field of Native American Art History in the fall.

Khetiwe Khumalo received a summer internship with Enterprise Rent-a-Car and a fall internship focused on NAFTA and economic policy in Washington D.C.

Nora Kozloff was accepted into the Master of Science in Genetic Epidemiology program at the University of Washington.

Lauren King (class of '05) received a University of Virginia Law Academic Scholarship, and is currently the Editor-in-Chief of Virginia Journal of Law and Technology.

Carmel Laurino received a Mary Gates Scholarship for both Leadership and Research.

Katharine Liang will be a Blinks Research Fellow at the Friday Harbor Laboratories this summer. In addition, she has been nominated for the Edward E. Carlson Student Leadership Award, the William Gerberding Honors Service Leadership Scholarship, and the HUB Hall of Fame Student Activities Award. Katharine is a recipient of the 2006/7 OMA/Boeing Scholarship.

Jaimée Marsh received the Lt. Col. Michael P. Anderson Award (NAACP-Spokane).

David Mendoza received the Sonnenblick-Del Rio Global Citizens Scholarship for 2007-2008.

Emma Noyes received the Bonderman Fellowship to study indigenous populations around the world for 2007-2008.

UW Student Accomplishments

Jeannie Nguyen received an Association Women in Science (AWIS) award and participated in the Herschel and Caryl Roman Genome Sciences Research Internship.

Vi Nhan is an Institute for International Public Policy Fellow and a Gates Millennium Scholar.

Lisa Oh received a Mary Gates Research Scholarship and will attend the University of Washington in the fall to pursue graduate studies in Electrical Engineering.

Kelly Ohlde Pfundheller has been accepted to several top-ranked law schools around the nation. Decision pending.

Juan Pinzon was accepted to the University of Washington Mechanical Engineering graduate program.

Alvaro Presenda had a paper accepted for publication in a scientific journal, and is an Emerging Leaders in Engineering Scholar. Alvaro is a recipient of the 2006/7 OMA/Boeing Scholarship.

Sharmila Pal has earned a Chemistry Undergraduate Departmental Scholarship for 2007-2008.

Josie Quitugua was accepted into the UW STAR (Stipends for Aspiring Researchers) Program for summer 2007, and received a Mary Gates Leadership Scholarship.

Brook Sattler published and presented first author paper titled "Diversity in Engineering Teaching -Views from Future Engineering Faculty" at the American Society for Engineering Education (ASEE).

Michael Schulze-Oechtering received a 2006/2007 Zesbaugh Scholarship.

Harkirat Sohi received an Honorable Mention at the Mathematical Contest in Modeling, and will be studying abroad in Australia this fall. Harkirat is a recipient of the 2006/7 EIP Presidential Scholarship.

Eric Stenehjem will be attending Stanford University next year, working toward his PhD in Chemistry. He was awarded an Honorable Mention for the 2007 National Science Foundation Graduate Research Fellowship. Eric is a recipient of the 2006/7 OMA/Boeing Scholarship.

Celia Viveros has been accepted as a PPIA Fellow to the Public Policy and International Affairs Junior Summer Institute at Carnegie Mellon in Pittsburg, PA.

EIP/McNair students participated in the OMA/Classics Rome Academic Enrichment Program:

Valiesha Brown
Annabel Cholico
Edgar Flores
Monique Mascio
Ashley Russell
Audra Vincent

Inaugural EIP and Diversity Scholars Supplemental Research Stipend Awardees:

Maria Acosta
Yared Ayele
Angeline Candido
Natividad Chavez
Karl Clapp
Martin Escandon
Rachel Gillum
Nick Gomez
Chanaye Jackson
Carmel Laurino
Michael Motte
Christina Rainey
Jamil Suleman
Chloe Valencia

UW Student Accomplishments

McNair Alumni Accomplishments

We are proud to present the impressive and wide-ranging accomplishments of our University of Washington McNair Program alumni. In particular, at least five former UW McNair Scholars will be earning their Ph.D.s this spring. We congratulate them all and wish them the best of luck in their future endeavors.

2007 Ph.D. Recipients

Misty Bentz, Astronomy, The Ohio State University
Vicente Garcia, Integrative Biology, University of California-Berkeley
Mary Heng, Neuroscience, University of Michigan
Christina Roberts, English Literature, University of Arizona
Nerayo Teclerian, Chemical Engineering, University of California-Berkeley

Class of 2006

Nichelle Alderson is pursuing a Masters degree in Social Work at the University of Washington and received a Graduate Opportunities and Minority Achievement Program (GO-MAP) Tuition Scholarship.

Tess Lang is a National Institutes of Health Academy Fellow and will pursue an MD/PhD at the University of California, San Francisco in the fall.

Jamie Northern currently works with Amgen Inc. as a Research Associate. She plans to enter the University of Washington MD/PhD program in Botany, with a specialization in Chemistry and Molecular Biology.

Oscar Rosales is pursuing a Masters degree in Chicano and Chicana Studies at San Diego State University. He has recently published an article for historyLink.org, the Online Encyclopedia of Washington State History, and has two in preparation for Pacific Northwest Quarterly and Columbia Magazine.

Merob Shimeles received a Capital Fellowship with the Environmental Protection Agency.

Anthony Vigil is employed at Disney Internet Group, and is pursuing a Masters degree in Computer Science at Purdue University.

Jenny Yuen received a National Science Foundation Graduate Research Fellowship and a National Defense Science and Engineering Graduate Fellowship from the Department of Defense. She is pursuing a PhD in Computer Science at Massachusetts Institute of Technology.

Class of 2005

Eric Mvukiyehe received a National Science Foundation Graduate Research Fellowship, as well as two Research Grants from the Swedish Government totaling over \$100,000. He is studying Political Science at Columbia University.

Natasha Rivers received both the Eugene V. Cota Robles Fellowship (4 year fellowship) and the UC Diversity Initiative for Graduate Study in the Social Sciences grant from the University of California, Los Angeles, where she is studying Geography.

UW Student Accomplishments

Class of 2004

Jennifer Devine earned her Masters degree in Geography from the London School of Economics as a Marshall Scholar. Her research was published in the radical journal of geography, *Antipode*.

Oluwatope Fashola received the McNair Graduate Fellowship and earned a Masters degree from Indiana University in 2006. Oluwatope also received the Disciplinary Based Studies in Education Traineeship and the Indiana Graduate Merit Award.

Nhi Nguyen earned a Masters degree in Social Work from the University of Washington in 2006.

Sonca Nguyen is pursuing a PhD in Aerospace Engineering at the University of Michigan, where she received the National Foundation Fellowship and the Amelia Earhart Fellowship.

Hoang Nhan received a National Science Foundation Graduate Research Fellowship in 2006. She is pursuing a PhD in Neuroscience at the University of California, San Diego.

Derek White earned a Masters degree in Curriculum & Instruction, focusing on Multicultural Education from the University of Washington in 2006. He is now enrolled in a Ph.D. program in Educational Leadership and Policy Studies at the UW.

Class of 2003

Annamarie (Valdivia) Frank earned a Masters degree in Latin American Studies, focusing on Brazilian Studies/History, from the University of Arizona. She is currently pursuing a J.D. at the University of Arizona and recently completed legal research for an Appellant Brief filed in the Ninth Circuit Court of Appeals.

Jorge Roberts received a Merrill Lynch Fellowship, a National Hispanic MBAs (NSHMBA) Scholarship, and is a Management Leadership for Tomorrow (MLT) alumnus.

Class of 2002

Emilyn Alejandro is pursuing a PhD in Physiology at the University of British Columbia, where she received the Cordula and Gunter Paetzold Fellowship, the Ph.D. Tuition Fee Award, and the International Partial Tuition Scholarship.

Ona Anicello has recently completed a certification in the Department of Technical Communications at the University of Washington in UCD certification.

Misty Bentz was awarded the Allan Markowitz Graduate Award for Excellence in Observational Astronomy in 2006, and was a National Science Foundation Graduate Research Fellow from 2004 to 2007.

Max Hunter received his Masters in History and History of Science from Harvard University in 2006. He is now working toward a Masters in Education.

Janelle (Sagmiller) Palacios received the Ruth L. Kirschstein National Research Service Award Fellowship and the National Institute of General Medical Sciences Fellowship. She is pursuing a Ph.D. in Nursing from the University of California, San Francisco.

Nerayo Teclamarium received the University of California Dissertation of the Year Fellowship in 2006; received the Berkeley Mentored Research Award in 2004 and received the UC Berkeley Graduate Opportunity Program Fellowship (3 year fellowship) in 2002.

UW Student Accomplishments

Class of 2001

Thuy Doan is pursuing an MD/PhD specializing in Neurobiology at the University of Washington and recently first-authored a publication in the journal, *Science*.

Vicente Garcia will earn a PhD this year in Integrative Biology, specializing in Plant Evolution from University of California, Berkeley. Vicente has received numerous awards and fellowships including the University of California President's Postdoctoral Fellowship, the Ford Foundation Dissertation Fellowship, the Robert and Nancy Beim Endowed Graduate Field Research Award, the Botany in Action Fellowship and has two publications.

Laura Locker is pursuing a J.D./PhD at Johns Hopkins University and has received numerous fellowships including the Johns Hopkins University Department of Political Science Graduate Fellowship, the Owens Fellowship (2001-2004) and has also published and presented on her research related to grassroots entrepreneurship.

Tyson Marsh earned a Masters Degree in Education and Information Studies from University of California, Los Angeles in 2003. Tyson also received the Graduate Summer Research Mentorship Scholarship in the summers of 2006 and 2005 and also received the National Security Education Program Fellowship in 2005. Tyson is currently living in Egypt.

Carlos Moreno is pursuing a PhD in Organismic and Evolutionary Biology at Harvard University. Carlos also received the Pierce Graduate Scholarship and participated in Teach for America in Baltimore.

Christina Roberts has received numerous awards and fellowships from the University of Arizona, where she is currently pursuing a PhD in English Literature focusing on Native American literature. Christina Roberts will begin to teach at Seattle University this fall.

The Life of Ronald E. McNair



After graduating magna cum laude from North Carolina Agricultural and Technical State University (A & T), Dr. Ronald E. McNair went on to earn a Ph.D. in laser physics from the Massachusetts Institute of Technology (M.I.T.). In 1978, he was one of 35 astronaut candidates selected from a pool of 11,000 applicants to become a member of NASA's elite Space Shuttle program.

In February 1984, he first orbited the earth aboard the *Challenger*. In 1986, Dr. McNair perished along with six fellow crewmembers aboard the ill-fated shuttle, *Challenger*. Dr. McNair combined a remarkable life and career as a research scientist, pioneering astronaut, family man, jazz musician, karate expert, and a man of faith.

His lifelong commitment was to continue his quest to inspire and encourage students to dream big, work hard and accomplish their goals. As a crusader for education, he spoke before the Massachusetts State Legislature on education, Dr. McNair proclaimed, "I believe that in our urban and rural cities there are great minds and talents with hands that can control a spacecraft with the same dexterity that they control and handle a basketball. These talents must not be wasted." Ronald McNair is an American hero whose story serves as a model for people from all walks of life. His story is one that must be passed on from generation to generation.

About Our Sponsors

The **Office of Minority Affairs** is guided by the core principle of educational equity to ensure a welcoming climate in which all students will realize their full potential. The EIP and McNair Programs are two of the many outreach and academic support services that are available to students at the University of Washington. Over 10,000 students have participated in OMA and are now established leaders in their chosen professional fields.

The University of Washington's **Early Identification Program for Graduate and Professional Studies** encourages and assists undergraduates from educationally and economically disadvantaged backgrounds to enter graduate and professional school. Our goal is to promote diversity in academia and the professions, which will enrich research and policy programs and ultimately represent the entire spectrum of American people. We offer a variety of services and resources designed to enable EIP students to enhance their undergraduate experience, explore various career options at the graduate level, and prepare for successful admission to and completion of graduate or professional school. We emphasize undergraduate research opportunities, which will benefit students regardless of which graduate or professional path they choose to pursue.

The Ronald E. McNair Post baccalaureate Achievement Program at the University of Washington prepares undergraduates for doctoral study through involvement in research and scholarly activities. Our goal is to successfully support low-income, first generation students, and students from groups underrepresented in graduate education, in their efforts to become researchers and teachers at the university level. The McNair Program offers a challenging and supportive environment that is conducive to learning and personal/professional development.

The Graduate Opportunities & Minority Achievement Program (GO-MAP), a division of the Graduate School, is headed by Johnnella E. Butler, Associate Dean and Associate Vice Provost, and works to promote greater access to advanced studies for graduate students of color and traditionally underrepresented groups. GO-MAP exists to maintain a diverse graduate student community and to enhance the quality of the graduate experience for all students. GO-MAP provides leadership in recruitment and retention of ethnic minority and underrepresented students. GO-MAP has established itself as the central place for graduate students to gain personal and professional support, get actively involved with campus events, and connect with fellow students and faculty across departments.

Sigma Xi, The Scientific Research Society

Founded in 1886, Sigma Xi is the international honor society of research scientists and engineers, with a distinguished history of service to science and society. This non-profit society includes nearly 65,000 scientists and engineers, in more than 100 countries, who were elected to membership because of their research achievements or potential. Nearly 200 members have received the Nobel Prize. Sigma Xi chapters, more than 500 in all, can be found at colleges and universities, government laboratories and industry research centers throughout North America and around the world. In addition to publishing award-winning *American Scientist* magazine, Sigma Xi awards hundreds of grants annually to promising student researchers and sponsors a variety of programs that support research ethics, science and engineering education, the public understanding of science, international research networking and the overall health of the research enterprise. Their address is: P.O. Box 13975, 3106 East NC Highway 54, Research Triangle Park, NC 27709. Phone: 800-243-6534 or 919-549-4691

EIP/McNair/GO-MAP 15th Annual Spring Research Conference



**The Ronald E. McNair Post baccalaureate Achievement Program University of Washington
Office of Minority Affairs**

The McNair Achievement Program offers a challenging and supportive environment that is conducive to learning and personal/professional development. As a McNair scholar students receive the following benefits:

- The support of the McNair Advisory team
- Summer research and internship opportunities
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- Specialized workshops and seminars on the graduate school application process
- Personal assistance in locating graduate schools
- Access to standardized test preparation
- Access to tutoring and the OMA Instructional Center
- Academic counseling
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- Research methods and data analysis workshops
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375 Schmitz
Box 355845
Seattle, WA 98195

Phone: 206.543.6460
Fax: 206.543.2746
Email: uwmcnair@u.washington.edu