7th Annual Student Research & Creative Works Symposium

Wednesday, May 19, 2004
8:00 a.m. – 5:00 p.m.
Monroe Hall

8:00 - 9:00 a.m. Coffee Hour: 1st Floor
Conversation, coffee, juice, and breakfast pastries

8:20 – 11:40 a.m. Oral Presentations
All sessions will be held in the 1st floor classrooms

12:00 – 1:00 p.m. Keynote Address: 2nd Floor Lounge
Lunch Provided

Keynote Speaker:
Dr. Jonathan Johnson, EWU Creative Writing Professor
“Last Call at Library Closing Time: On the Creative Process in Research and the Arts”

1:20 – 3:40 p.m. Oral Presentations
Research sessions will be in the 1st floor classrooms, creative works presentations will be on the 3rd floor.

2:30 – 4:00 p.m. Poster Session
2nd floor Women’s Studies Lounge and Chicano Education Lounge (on either side of the main 2nd floor lounge)

4:00 – 5:30 p.m. Reception and Closing Ceremony
Beginning with the EWU Honors String Quartet

Please join us for the closing ceremony to recognize and celebrate the presenters and their faculty mentors. In addition, we will present awards in recognition of excellence for outstanding presentations chosen by our faculty judges.

Refreshments provided.

Website: www.ewu.edu/researchsymposium/
Symposium Committee Members

Mark Baldwin, Assistant Dean for Undergraduate Studies
Larry Briggs, Associate Dean for Graduate Studies
Grant Forsyth, Professor of Economics
Meryl Gersh, Professor of Physical Therapy
Karen McKinney, Director of Student Symposium and McNair Scholars
Shannon Schueller, Graduate Assistant
Kelly Schwartz, Academic Coordinator, McNair Scholars
Jeanne Small, Professor of Chemistry

Symposium Sponsors

EWU Office of the Provost
Graduate and Undergraduate Studies
TIAA-CREF
Grants and Research Development
President’s Diversity Commission
McNair Scholars Program
Jerry and Ruth Galm

A Note of Appreciation to the Following:

Jonathan Johnson        Kerry Moxcey        Chicano Education Program
Ronald Dalla            Lance Walker        The Women’s Center
Dawn Holladay           Judy McMillan       Event Planning
Lesli Younger            Trish McFarland    All Volunteers
Larry Conboy             Printing Services   Provost Brian Levin- Stankevich
President Stephen Jordan and Office Personnel
Student Symposium 2004 Keynote Speaker:

Dr. Jonathan Johnson
Department of English, Creative Writing
Eastern Washington University

BIOGRAPHY
Dr. Jonathan Johnson's poems appear in the current or in forthcoming issues of Southern Review, Ploughshares, North American Review and various other magazines. They have also appeared in the Best American Poetry, American Poetry: The Next Generation and Poetry Thirty: Thirty Something American Poets anthologies. His first poetry collection, Mastodon: 80% Complete, was published in 2001 by Carnegie Mellon University Press, and his nonfiction book, Hannah and the Mountain: Notes Toward a Wilderness Fatherhood, is forthcoming from the University of Nebraska Press in their American Lives Series. Dr. Johnson teaches in the Inland Northwest Center for Writers and University Honors programs at Eastern Washington University, where he was named Graduate Faculty of the Year for 2002-2003.

Keynote Address:
“Last Call at Library Closing Time:
On the Creative Process in Research and the Arts”

ABSTRACT
While the internal dramas of research and artistic creation are notoriously hard to portray, many painters, writers, and filmmakers have tried. Those who have succeeded have given us a valuable array of works which elucidate (as well as celebrate) the activity of the intellect at some of its grandest moments. In this talk, Dr. Johnson will examine some of these artistic, literary and cinematic depictions. By looking at how discovery, analysis, and insight are rendered in paintings, poems, stories, and films, those scholars and artists who devote themselves to the life of the mind will, it is hoped, gain some new understanding of themselves and their own creative processes.
Judges

Marge Andrews (Modern Languages)
Armin Arndt (Counseling, Educational and Developmental Psychology)
Gloria Ayot (Education)
Nancy Birch (Business)
Matthew Chase (Physical Education, Health and Recreation)
Alan Coehlo (Physical Education, Health and Recreation)
Cynthia Cutler (Teaching and Learning Center)
Lanny Devuono (Art)
Diane Dowd (Mathematics)
Amani El-Alayli (Psychology)
Dana Elder (English)
Kendall Feeney (Music)
Anthony Flinn (English)
Gilbert Garcia (Chicano Education)
Maria Hernandez-Peck (Social Work)
Kayleen Islam-Zwart (Psychology)
Golie Jansen (Social Work)
Russell Kolts (Psychology)
Judy Leach (Education)
Haideh Lightfoot (Biology)
Dale Lindekugel (Sociology)
Paul Lindholdt (English)
Carlos Maldonado (Chicano Education)
Brenda McCracken (Biology)
Karen McDaniel (Education)
Marion Moore (Counseling, Educational and Developmental Psychology)
Jeff Stafford (Communication Studies)
Tom Trulove (Economics)
Nancy Wainwright (Business)
Philip Watkins (Psychology)
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<td>Dr. Kristin Edquist, Department of Government and Dr. Jerry Galm, Department of Anthropology</td>
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<td>Romance, Media and Psychosocial Development</td>
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**Creative Works Session – Room 302**

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ORAL PRESENTATIONS

MORNING SESSION

ROOM 109

Abstracts appear in chronological order, as they appear in the schedule on page 5.
Strong Words From a Strong President

*Bryant Hemphill, Undergraduate; Shane Caskey, Undergraduate*
*Dr. Patricia Chantrill, Department of Communication Studies*

Presidents have the opportunity to guide and command the most powerful nation on earth. Because of this, they have to be very wise in the style of rhetoric they use, and they must realize the power of rhetoric when used improperly. Through our research and study of *The Rhetorical Presidency* by Jeffrey Tulis, we have found that many presidents throughout history have used the presidency as a way to sway the public into supporting certain decisions that the president and his administration have made or want to make. Essentially, presidents can and will persuade a nation to conform to beliefs needed to support government policy. The Gettysburg Address delivered by Abraham Lincoln is a great example of how rhetoric can be a powerful tool when dealing with a nation in the midst of division. We will examine this classic example of American Presidential rhetoric for evidence of whether Lincoln adhered to, or opposed, Tulis’ theory of presidential rhetoric.

A Brief History of Peyote Use and the Creation of the Native American Church

*Kevin M. Hannan, Undergraduate*
*Dr. John Dorwin, Department of Anthropology*

Worldwide, religions practices are often associated with states of altered consciousness that are the outcome of internal and external forces. Altered or ecstatic religious states have been associated with such practices as fasting, extreme physical exertion, meditation and the consumption of psychoactive sacraments. In Southern and Central America, there are several religions that include a variety of hallucinogenic sacraments. The use of these sacraments, specifically the spineless cactus Peyote, spread to the North American Native Indian tribes at the turn of the 20th century and was instrumental in the creation of the Native American Church. The creation of the church allowed for the collective tribes of the Indian Nation to develop a unified religion that provided a means for the fractured nation to return to traditional lifestyles that would include religious practices that had been denied them by the white man.

The Rhetorical Implications of Fat Man and Little Boy

*Ryan M. Moser, Undergraduate*
*Dr. Patricia Chantrill, Department of Communication Studies*

Throughout history the numerous and political varying Presidents of the United States have been faced with a multitude of time altering decisions. These decisions have changed the way Americans live and view life. In 1945, President Harry S. Truman made the controversial decision to unleash two nuclear bombs on the Japanese cities of Hiroshima and Nagasaki. This one decision in Truman’s Presidency changed the globe and the entire context in which warfare is conducted. Rhetorically, President Truman maintained that the nuclear attack against Japan actually saved lives. If the bombs had not been dropped, the United States and Japan would have lost a far greater number of lives in an all out amphibious invasion. I believe Jeffery K. Tulis, author of *The Rhetorical Presidency*, would have defended Truman’s rhetoric, and his relatively ambiguous explanation. Throughout this essay I will portray the manner in which President Truman decided to use nuclear force and the rhetorical implications behind the decision and the controversial aftermath.
The Month That Would Not End
Karli Shea Clift, Undergraduate; Cliff Nathan Hansen, Undergraduate
Dr. Kristin Edquist, Department of Government; Dr. Jerry Galm, Department of Anthropology

Although the topic of this presentation may not be suitable for small children, the images displayed generally are not graphic.
Between April and July, 1994, approximately 800,000 Rwandans died in a horrible instance of mass hysteria. Our purpose is to understand how this occurred by studying how Rwanda was affected by its history, people, and external organizations and states. Focusing on those intervening, we address their reactions and find that in many cases, private individuals were in a better position to respond to the genocide than many organizations and states.

A Computer Guide for Comparative Osteology: Traits of Continuous Variation in the Human Skull
Earline J. Huckins, Undergraduate, McNair Scholar
Dr. Sarah Keller, Department of Anthropology

This computer program is designed to aid students in studying the traits of continuous variation of the human skull. The program is formatted like a laboratory worksheet with menus providing options for viewing each trait and the applicable degrees of variation. Upon selecting a trait for viewing, a drop down menu appears allowing the student to select the degree of variation. An enhanced photograph then appears for the student to use as a comparison or as a substitute if that particular skeletal feature is absent in the collection they are working with. The program is intended to aid students who do not have access to large skeletal collections or who may need additional assistance in understanding the skeletal material that they are studying.

John F. Kennedy and Image Rhetoric
Carina M. Van Son, Undergraduate
Dr. Patricia Chantrill, Department of Communication Studies

On September 26, 1960, there was a presidential debate between then Senator John F. Kennedy and Vice President Richard Nixon. The outcome of the debate became controversial when research suggested that most citizens who listened to the debate on the radio were convinced that Nixon had triumphed over Kennedy. Those who watched the debate on the television largely perceived Kennedy to be the winner because of his polished image he brought to the cameras. The way that the rest of the presidential campaign played out was greatly affected by the divided perceptions of who won this debate. How much of Kennedy’s visual image affected what counts as “proper presidential rhetorical appeals,” as outlined by J. Tulis in The Rhetorical Presidency, is the question driving my research. I hope to examine the reasons behind Kennedy’s ability to become elected as president and to be remembered as one of the most liked president’s of our time.
Wealth and Its Effects on Democracy
Jose Montoya, Undergraduate, McNair Scholar
Dr. Keith Quincy, Department of Government

The theory of Democracy is fading in accordance to the nature of time. Government originally capsulized the power to redistribute wealth. Yet, at present time the practice of such top to down policies have mutilated the proper workings of a functioning government. Thus, the deciphering of such liner mapping of present transitional constructs in the U.S. will be discussed.

Ignorance, Dissociation, and the Appeal of Zachary Taylor
Danielle A. Verhulp, Undergraduate
Dr. Patricia Chantrill, Department of Communication Studies

Zachary Taylor, the twelfth president of the United States, exhausted little time campaigning for the presidency in 1849. In fact, Taylor was nearly ignorant to political matters of the time. Having served in the armed forces for years, his concerns instead revolved around military-related issues. As the election of 1849 neared, citizens sought stances from Taylor on important political issues of the day. However, Taylor provided none. Not only was he content to remain unbiased on issues, he also refused affiliation with political parties. It was only after heavy persuasion that Taylor reluctantly associated himself with the Whig party. An analysis of arguments set forth by Jeffrey K. Tulis’s text, The Rhetorical Presidency, proves these actions to be both inherent in 19th century campaigning and also incongruent in today’s presidency. Therefore, I will examine the appeal of Taylor’s apparent ignorance to matters of public importance and establish a correlation between these actions and the directives of the modern presidency outlined by Tulis.
ORAL PRESENTATIONS
MORNING SESSION
ROOM 107

Abstracts appear in chronological order, as they appear in the schedule on pages 5 - 6.
The Retail Presidency

_Craig M. Whalen, Undergraduate_

_Dr. Patricia Chantrill, Department of Communication Studies_

Throughout time presidential candidates have used a variety of rhetorical devices to gain momentum while campaigning. Through research I have examined the rhetorical devices & campaign strategies utilized by the Ronald Reagan administration. I have found that former president Ronald Reagan was extremely successful using “appeals to fear”-(Harris) coupled with “going to the people”-(Tulis) to gain national domestic support. At first glance this strategy was successful in defining an opportune exigency: the political unrest between the two nuclear superpowers of the United States and the former Soviet Union. In comparison to other campaigns by former presidents, it is obvious that Ronald Reagan had persuaded the United States on fear appeals that forever changed the relationship between the American people and their presidents.

Russian Economic Transformation: Building a House Without a Foundation

_Amanda Smizaski, Undergraduate, McNair Scholar_

_Dr. Grant Forsyth, Department of Economics_

During the past decade, Russia has undergone a monumentus transformation from a rigid centrally planned economy to an economy increasingly governed by market forces. This has proven to be far more challenging than simply addressing the macroeconomic factors stressed by the IMF and the World Bank. While Russia has made admirable progress, especially since the 1998 crisis, the absence of focus on microeconomic issues in Russia has become problematic; these issues must be addressed for Russia’s economic process to continue. This project addresses two specific areas that have hampered Russia’s pro-market reforms: information dissemination in the market and the presence of functioning private property laws. These two factors are essential for market economies to function efficiently.

The NAFTA Promise: Mexico’s Haves and Have Nots

_André C. Guzman, Undergraduate, McNair Scholar_

_Dr. Tom Trulove, Department of Economics_

The North American Free Trade Agreement (NAFTA) amongst United States, Canada, and Mexico was implemented on the fourth day of January 1994. It is now coming up on its tenth anniversary of its proposed fifteen year process. During this process, NAFTA has made promises that all the countries involved will benefit by experiencing the following: economic growth, economic development, and increased trade. From the Mexican perspective, this study aims to examine if NAFTA has aided or hampered Mexico both economically and socially; if so, in what ways has it affected Mexico and its people.
Negative Attitudes Toward Menstruation as Indicators of Japanese Women’s Interest in a Menstrual Suppression Pharmaceutical Product

Heather C. Robinson, Graduate
Dr. Elizabeth Kissling, Department of Communication Studies

The purpose of this paper is to investigate the relationships between the symptomatology of and the attitudes toward menstruation, and interest in the use of a menstrual suppressant pharmaceutical agent. Research shows that, while up to 85% of American women experience premenstrual symptoms, it is their negative attitudes toward menstruation, not their symptomatology, that determine their interest in a cycle stopping contraceptive. This research will show a comparison of American women’s attitudes and those of Japanese women studying in the USA. It will attempt to explain these relationships, as well as possible impacts from the advertising of menstrual suppressant pharmaceutical agents. Because any campaign promoting these products could have further effects on social attitudes toward menstruation, such effects as well as cross-cultural contamination will be examined to determine the need for future research.

The Impeachment Trial of Andrew Johnson

April M. Davis, Undergraduate
Dr. Patricia Chantrill, Department of Communication Studies

In 1867, Andrew Johnson was the first president to be proceeded by the impeachment trial after Abraham Lincoln’s assassination. The significant political debate that affected president Johnson in his impeachment trial was the over use of congressional power. It would also be interesting to research how much the Republican Radical view greatly affected Andrew Johnson’s impeachment. In my research I will describe how Jeffrey K. Tulis’s argument within The Rhetorical Presidency relates to Andrew Johnson’s unofficial rhetoric presidency. To accomplish this historical research about Andrew Johnson I will read the following printed information that is relevant to his impeachment trial: the articles and rule of impeachment, editorials within the time period of Johnson’s presidency, and news stories affiliated with Johnson.

Pakistan’s Role in the Pathan Invasion of the State of Jammu and Kashmir

Jennie L. Willardson, Graduate
Dr. Martin Seedorf, Department of History; Dr. Elwyn LaPoint, Department of Anthropology

The question this paper asks is to what extent was the government of Pakistan responsible for the Pathan Invasion of the princely state of Jammu and Kashmir in 1947? This paper will trace how and why the Pakistani Government was behind the Pathan Invasion of Kashmir. It will show that Governor General Jinnah’s idea of Pakistan always included Kashmir. That Pakistan first tried to negotiate Kashmir’s accession. When that fell through Pakistan began a trade embargo of Kashmir. Pakistan then escalated its pressure on Kashmir with border raids. Finally Pakistan organized, supplied and financially backed the Pathan Invasion of Kashmir.
Bill Clinton and His Affair Affects His Presidential Rhetoric

*Marie L. Nygard, Undergraduate*

*Dr. Patricia Chantrill, Department of Communication Studies*

This research examines how former President Bill Clinton’s affair with intern Monica Lewinsky affected his rhetorical appeals to the public. Clinton appeared to demonstrate a strong rhetorical presidency and a healthy and stable government before the scandal. Jeffrey K. Tulis argued in his book, *The Rhetorical Presidency*, that a president must be able to run a government without making direct appeals to the people. In 1998, the scandalous tale of the president and the White House intern was the biggest story in America. It came very close to bringing down the whole presidency, and it may have forever changed the way Americans evaluate our political leaders.

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John Tyler and Jeffrey K. Tulis’ *The Rhetorical Presidency*

*Leah Pelto, Undergraduate*

*Dr. Patricia Chantrill, Department of Communication Studies*

John Tyler was a president that set a precedent by being the first to come into office without an election. William Henry Harrison died after one month in office and Tyler succeeded him and settled the debate if he should be “acting president” or the actual president. He was in the mindset that most if not all rhetoric needed to be intrabranch. He had few public speeches yet had a very controversial presidency. His entire cabinet ended up resigning due to Tyler’s veto of a national bank bill. He ended his presidency without a party and didn’t attempt to be reelected. My research will attempt to show that if Tyler had defended his actions directly to the public, his current image would be a lot better. Jefferey K. Tulis’ theory that the presidency has worsened because it has drifted away from the Founder’s plan is untrue. I attempt to explain this using Tyler’s presidency.

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Trauma and It’s Effects on Sudanese Refugee Children

*Godfrey T. Elizai, Undergraduate, McNair Scholar*

*Dr. Golie Jansen, School of Social Work*

Sudanese refugee children were exposed to countless traumatic events, largely due to two decades of civil war in their country. These traumatic events were rooted in their complex experiences of war, flight, camp life and resettlement. Effects of these traumatic conditions manifest themselves as social and mental health concerns and may include posttraumatic stress disorders (PTSD), difficulty with academic tasks, and general coping skills. The paucity of literature about Sudanese refugees in the United States has left these children and their plight unnoticed, and impeded the delivery of effective services. However, adjustment problems faced by Sudanese refugee children are to a large degree similar to those of previous groups, and therefore successful interventions could be adapted to serve Sudanese refugee children. Recommendations for a future comprehensive ethnographic study targeted at Sudanese to explore more effective treatment options will be offered.
Identity Theft: The Chief Seattle Speech

Shannan Kain, Undergraduate

Dr. Paul J. Lindholdt, Department of English.

There are several extant adaptations of a speech allegedly delivered by Chief Seattle in 1854. None of them is wholly accurate. The most famous of these adaptations was used to convey an environmentally and emotionally powerful message in the 1970s. The present study investigates the different adaptations of this speech to determine their degrees of authenticity and the possible motivations of those who adapted or co-opted Chief Seattle’s words.
ORAL PRESENTATIONS

MORNING SESSION

ROOM 114

Abstracts appear in chronological order, as they appear in the schedule on page 6.
Investigation of Microbial Reservoirs and Routes of Transmission Contributing to Nosocomial Infections in a Hemodialysis Unit

Jill M. Petty, Graduate
Dr. Sidney Kasuga and Dr. Haideh Lightfoot, Department of Biology

Nosocomial infections are on the rise, and with new antibiotic resistant strains of bacteria constantly emerging, they are more dangerous than ever. Contaminated hands result in contamination of the entire healthcare environment, and there is sufficient evidence to conclude that surface contamination plays a significant role in the transmission of pathogens. New methods of hand antisepsis, such as waterless sanitizers, have been designed taking into consideration the lack of time and increased hand trauma from frequent washing that many healthcare providers experience in an attempt to improve hand washing compliance. My study began by comparing the microbial flora of an initially “clean” hemodialysis unit with the microbial flora of the same unit in its “contaminated” state. Clinical staff participated in hand antisepsis comparisons, and were tested to determine whether or not they were carriers of Staphylococcus aureus. Staphylococcus was revealed to be the etiology of 42.3% of nosocomial infections at this unit, correlating with the predominant finding of this pathogen in a majority of the contaminated unit samples.

Settling Date Indicates Female Bobolink Mating Status

Matthew P. Moskwik, Graduate
Dr. Margaret O’Connell, Department of Biology

Most species of birds are monogamous, however approximately 8% of bird species are polygynous, a mating system in which one male mates with several females during a season. Polygynous females lose paternal care, but might gain access to a superior territory or male. Females arrive on the nesting grounds in temporal waves with the first wave selecting the best males and/or territories. I examined several factors that affect polygyny in Bobolinks, a grassland bird species of the northern United States. My study site was located on the Pend Oreille River. Male territories were mapped, nests located and monitored, and vegetation assessed from May to mid July 2003. Females arrived on the study site in three temporal waves: monogamous, primary, and then secondary females. Monogamous territories had higher caterpillar densities, higher herbaceous coverage, and were smaller in size than polygynous territories, reflecting the patchy distributed vegetation of the study site. Both sexes had very different reproductive strategies. Females selected for a monogamous mating situation, while males defended large territories in order to attract several females.
Behavioral Patterns of a Maternity Colony of Townsend’s Big-Eared Bats *(Corynorphinus Townsendii)*

*Theresa Mathis, Graduate*

*Dr. Margaret O’Connell, Department of Biology*

Females of bats return to traditional maternity roost sites for the birth and rearing of young. Townsend's big-eared bats, a state listed species, traditionally uses caves as maternity roosts. Faced with the loss of their natural roosting sites they are known to use buildings as maternity roosts. However, buildings are more exposed to daily fluctuations of temperature, light intensity, and relative humidity. An understanding of how these bats use buildings may provide information for the successful management of these sites as maternity roosts. My research focused on the daily and seasonal activity patterns, spatial distribution, and clustering behavior, of Townsend's big-eared bats within an abandoned cabin. Seasonal arrival at the cabin was sporadic in both 2002 and 2003 but by the 2nd week of July bats were present full time. During lactation, bats left the cabin earlier and returned more frequently throughout the night than during weaning or dispersal. Spatial distribution varied daily with tight clusters in the morning. Changes in seasonal arrival, daily exit and return, and clustering behaviors reflect the bats response to variable microclimates within the building.

Positive Interactions of Two Invasive Species in Aquatic Ecosystems

*Melinda A. Howard, Graduate Student*

*Dr. Margaret O’Connell, Department of Biology*

Biological invasions are a threat to the diversity of native species because they disrupt natural ecosystems. For example, the introduction of the American bullfrog into Western United States, including Washington State, has had a negative impact on native frogs. They are large and aggressive competitors for habitat and food resources, thus leading to severe population declines of native species. In addition, the coexistence of two or more invasive species may have the potential to further impact natives by directly or indirectly positively facilitating their populations through the removal of environmental stresses. Evidence supporting the occurrence of this relationship between bullfrogs and another introduced predator, the bluegill sunfish, in the Pacific Northwest will be reviewed along with a history of bullfrog expansion since the 1930’s and their impact on ecosystems in Washington State.
Seasonal Water Quality Analysis of the Spokane River Basin

Daniel E. Davis, Undergraduate; Cassia A. Freeman, Undergraduate; Zachary I. Moore Undergraduate
Dr. Jeff Corkill, Department of Chemistry and Biochemistry

Water quality analysis is performed by the USGS over a number of geographically significant sites throughout the United States. The efforts of this study focused on thirteen total samples; starting at Coeur D’Alene Lake, seven samples from the Spokane River, and one each from Latah Creek and Little Spokane River together with four drinking water samples from Coeur D’Alene, Spokane, Cheney, and EWU. Samples were taken from September to May and analyzed for temperature, turbidity, pH, conductivity, and the specific analytes dissolved oxygen, phosphate, nitrate, calcium, and ammonium ions. A seasonal and geographical comparison of the data was graphically tabulated.

Treatment of Lateral Femoral Condyle Lesion with Autologous Cultured Chondrocyte Implantation: A Case Report

Anthony L. Lelo, Graduate
Professor Meryl R. Gersh, Department of Physical Therapy

Patients who sustain severe or repeated trauma to cartilage in their joints often require cartilage replacement. Autologous chondrocyte implantation is a new “cutting edge” surgical procedure for the treatment of articular cartilage defects. A biopsy of healthy cartilage is taken from a non-weight bearing portion of the femoral condyle at the knee. This biopsy is then sent for culturing. A small piece of periosteum is harvested from the medial tibia and used as a patch over the defect. The purpose of this case report is to compare this procedure with other procedures. It is also to present the surgical procedure along with the rehabilitation protocol. This was accomplished by following an individual’s initial care and rehabilitation program after Carticel® implantation. The patient is a 43-year-old male lineman and has no other medical problems. The initial injury occurred December 3, 2001. After the injury, the patient was unable to perform his job effectively. The patient received six physical therapy treatments. Upon discharge the patient had 48° of knee flexion. Research shows that Carticel® implantation regenerates hyaline-like cartilage. Carticel® implantation has a success rate of 80% - 85%.
Treatment of CRPS Type I

**James M. Shepherd, Graduate**

*Dr. Darl Vander Linden, Department of Physical Therapy*

Complex regional pain syndrome type I is a sympathetic nervous system disorder that can cause intractable pain out of proportion to the inciting trauma, and is associated with numerous types of integumentary, neuromuscular, and musculoskeletal involvement. This report describes physical therapy management of a patient with CRPS type I. The subject was a 52-year-old male diagnosed with CRPS in his right hand. Standard tests and measures found daily activities to be profoundly limited. Numerous interventions such as stress loading, desensitization, ROM exercise, massage, and aquatic therapy were initiated. The patient participated in 13 therapy sessions over a four-week period. TAOS scoring improved slightly from 15/50 to 19/50 and perceived pain decreased from a subjective maximum of 10/10 to 8/10. A small, but clinically relevant improvement was made in the patient’s overall condition. Prompt diagnosis and treatment, using stress loading as an independent program, and a more aggressive patient education regimen may have resulted in a shorter timeline of treatment and larger improvements in function. Appropriate education, motivation, and facilitation of pain reduction are crucial to returning the patient to previous societal participation.

Positive Memory Bias and Gratitude

**Marcus Neal, Undergraduate, McNair Scholar; Melissa Thomas, Graduate**

*Dr. Philip Watkins, Department of Psychology*

Past experiments have demonstrated that manipulating the emotion of gratitude has an impact on positive emotional states in some situations. We have suggested that one reason gratitude might promote happiness is through enhancing a positive memory bias of life events. Subjects were administered a life event recall task, which consisted of two parts: recalling salient or significant memories from a month ago and recalling salient or significant memories from your past (i.e. longer than a month ago). Those memories were then scored on emotional valence, both at the time that the salient memory occurred and at the time of the experiment. After the life events recall measure the subjects were then administered the GRAT, which measures gratitude in three specific areas: abundance, appreciation for others, and simple appreciation. The results of our study showed a positive correlation between all measurements of gratitude, but the correlation between positive memory bias and abundance seemed to be the strongest. Taken together, our results indicated that grateful people recall their lives in a more positive fashion, both in the recent and more distant past.
ORAL PRESENTATIONS

MORNING SESSION

ROOM 102

Abstracts appear in chronological order, as they appear in the schedule on pages 6 - 7.
The Effects of the Self-Enhancement Bias on Pet Perception

*Sara R. Adams, Undergraduate; Jenny L. Ciolli, Undergraduate; Staci L. Hollingsworth, Undergraduate; Amy L. Lystad, Undergraduate

*Dr. Amani El-Alayli, Department of Psychology

Previous research on the self-enhancement bias suggests that people rate themselves more favorably than they rate others. This bias also exists when people evaluate their possessions relative to those of others. The current study investigated whether people are also biased in favor of their pets. Participants were asked to rate their pet and the average pet on a list of positive and negative personality traits. As expected, participants rated their own pets better on both positive and negative attributes. Participants’ self-esteem did not appear to influence this bias. We concluded that self-biases do in fact extend to evaluations of one’s pet. This research has implications for increasing our understanding of the human-pet bond.

Investigating the Relationship Between Pet-Owner Similarity and Bias in Favor of One’s Pet

*Sara R. Adams, Undergraduate; Jenny L. Ciolli, Undergraduate; Staci L. Hollingsworth, Undergraduate; Amy L. Lystad, Undergraduate

*Dr. Amani El-Alayli, Department of Psychology

Past work on self-perception has shown that people evaluate themselves better than the average person. In our initial extension of this work, we found that this is also true when evaluating how one’s own pet compares to the average pet. In the present study, we hypothesized that this bias would be stronger for people who view their pet’s personality as more similar to their own. Participants were asked to rate themselves and their pet, as well as the average person and the average pet, on a series of personality traits. As predicted, people who were most similar to their pets showed more bias in favor of their pets. To further explore the implications of this bias, we are currently examining whether pet bias and pet-self similarity are related to general well-being.

What Buttons are Missing on the Remote Control: Cultural Influences on Adolescents

*Mareesha M. Backman (Hoyle), Undergraduate, McNair Scholar

*Dr. Sue Marie Wright, Department of Sociology

American youth are habitually exposed to the dangers of both physical and social health-related problems. Studies by the Center for Disease Control demonstrate that physical problems (such as obesity, type II Diabetes, unintentional/intentional injury) and social problems (including alcohol/tobacco and other drug uses, as well as sexual behavior, lack of healthy dietary patterns, decrease in physical activity, and failure to succeed academically) are rising at an alarming rate. Moreover, as children grow into adulthood, these experiences become a cognitive framework, influencing lifelong health and behavioral decisions. In this project, we examine influences on “tween” (9-13 year olds) culture, specifically those associate with health-related behaviors. We focus on the ways in which parents, peers, and the community shape tween culture in the Spokane Metropolitan Area, using interpretive, ecological, and critical theories to help explain our findings.
Romance, Media and Psychosocial Development

Melisa Noël, Graduate, McNair Scholar
Dr. Todd Hechtman, Department of Sociology

What is romantic competence and when do we start preparing for it? Who determines the cultural constructs of romance and when does that entity begin to influence us? These are the questions considered during a two year qualitative study examining the internet media format and its portrayal of romance to adolescence. Focusing primarily on the adolescent stages of life, this study suggests that adolescents are the primary target market for the romance genre making millions for companies with products to sell. However, even though we think our fascination with romance begins with the onset of puberty, our preparation for romantic competence begins before birth. The dominant themes of romance in the American culture include an expectation of a particular sequence with a set of standard behaviors (such as giving a woman roses on Valentines Day). The romance script also demonstrates rigid gender roles to which we are enlightened starting as early as preschool through many corporate marketing campaigns including those launched by Disney.

President Wilson and The Rhetorical Presidency

Steve McBride, Undergraduate
Dr. Patricia Chantrill, Department Of Communication Studies

The Rhetorical Presidency, a book by Jeffrey Tulis, outlined how the American presidency has changed over time. Tulis identified Woodrow Wilson as the first “rhetorical president,” or the first to break away from the Founders plan by using direct public appeal to pressure Congress on legislative issues. Wilson, on the other hand, thought it was essential to inform the public. In his 1885 treatise, Congressional Government: A Study in American Politics, Wilson proclaimed that “The president has the task of teaching the citizen to demand more of his government than spoils and the promotion of self-interest.” Wilson wanted the government to be responsive and responsible to an informed public. My research, through the review of Wilson’s book, will show when Wilson envisioned the rhetorical presidency and why he thought this was a better way of governing than the approach within the Founders’ design.
Teaching Green: Sustainability & Higher Education
Tad M. B. Wisenor, Graduate
Dr. Fred Hurand, Department of Urban and Regional Planning

Global citizens, particularly those in the wealthiest nations, must employ sustainable practices if they harbor any hope for the future of the world's resources. Today's college students will graduate to join the ranks of the most educated, wealthy and influential world citizens of the next generation. If they are exposed to a comprehensive campus-wide plan for sustainability during this most impressionable time in their lives, it can be hoped that these students will continue to practice and teach sustainable use and development in the future. By exploring the history of planning in higher education, sustainability theories, and the development of comprehensive plans for sustainability at three case study institutions as well as a variety of additional sustainable practices, a proposal for implementing a sustainability plan at Whitworth College, a 2000-student private four-year institution in Spokane, Washington, was developed.

Urban Ecology Oslo: Sustainable Urban Development and the Future
Gideon Schreiber, Graduate
Dr. Richard Winchell, Department of Urban and Regional Planning

Oslo, Norway is an innovative city that created the Urban Ecology Program (Bykologisk Programme) for a sustainable city form using frameworks developed under the European Union. This paper describes Oslo's development and implementation of the city's Bykologisk Programme, and assesses its impacts through a study of the composition of the city through public and private developments. Information exchanges with developers, planners, researchers, and several research professors, and a detailed look at local websites and reports allows for the analysis of critical issues. Comparisons are made through the assessment of Oslo's Bykologisk Programme, with an inclusion of historic sustainability ideas, European sustainability, and Local Agenda 21 progress and planning in Norway and Oslo. Oslo is moving towards a sustainable city form through the Urban Ecology Program; however the research described here concludes that continued planning with an emphasis on social, economic, and environmental needs will be necessary to achieve long-range sustainable development. Despite these conclusions, the Bykologisk Programme is a successful example for planners to use in seeing the possibilities for the future, and in helping lead cities in the direction of ecological sustainability.

Using Geographic Information Systems to Understand a Sample Population’s Basic Geographic Knowledge
Kevin L. Shipman, Undergraduate
Dr. Stacy Warren, Department of Geography

Having knowledge of basic geographic locations is considered fundamental. Using Geographic Information Systems, this research attempts to study the subjects’ knowledge of various locations. This specific location data is combined with data linked with each individual subject. This information is displayed visually, and demonstrates the errors of believed locations to that of known locations. There are clearly discrepancies between the two, and various trends can be derived from these errors. This research gives a visual display to the lack of geographic knowledge existent in the sample population.
ORAL PRESENTATIONS

AFTERNOON SESSION

ROOM 102

Abstracts appear in chronological order, as they appear in the schedule on page 7.
Revolution and Underdevelopment in Nicaragua: The Aftermath of Hegemonic Manipulation, Structural Adjustment Plans and U.S. Foreign Policy

Bruno M. Baltodano, Undergraduate, McNair Scholar
Dr. Fred Strange, Department of Anthropology; Dr. Lui Hebron, Department of Government

The politico-economic conditions in which Nicaragua finds itself are not natural; they are created by global dynamics that bind Nicaraguans as a dependant to the Core and to the U.S. sphere of influence. They are the aftermath of a relationship that, in the late nineteenth century, began to organize the character of power and Nicaraguan class structure solely for the benefit of external linkages and broader global dynamics. This paper, a historical evaluative, examines the factual and theoretical beliefs and assesses the consequences of policies that played a predominant role in this configuration. There are self-evident, conspicuous and repetitive patterns of interaction that lead to the chronic cycle of revolution, poverty, oppression to the populace and national underdevelopment. To the author, born and raised in Nicaragua, these are concurrent with hegemonic ideology and structural adjustment plans that benefit the Core at the expense of the countries of the Periphery. Their aim is threefold: 1) to assure macro-economic stability that will secure advantageous conditions for the development and operation of capital, 2) to assure the formation and continuation of a governmental infrastructure that is agreeable to the maintenance of global capital, and 3) to maintain social order necessary to preserve the first two conditions.

A Re-Examination of Ethiopian Agricultural Development

Zachary M. Holmes, Undergraduate

Dr. Jerry Galm, Department of Anthropology

The various ethnic groups that comprise modern-day Ethiopia share in common an inability to produce enough food on a consistent basis to feed their populations. In recent years, drought, famine, regional strife and the residual effects of colonialism have contributed to the woes that many now face in modern Ethiopia. A lack of sustainable agricultural production continues to affect a nation in which seven to eight million citizens depend on foreign food relief for survival. When applied in a blanket fashion, Western monocultural agricultural practices have failed to produce favorable results in Ethiopia. This paper examines the efficacy of adapting modern agricultural technologies to polycultural agricultural systems to meet the demands of an expanding Ethiopian population.
Sustainable Development or Globalization? The Plan Puebla Panama

Angela Johnson, Undergraduate, McNair Scholar

Dr. Fred Strange, Department of Anthropology

The Plan Puebla Panama is an economic development project which will include all seven countries in Central America and the Mexican states of Campeche, Chiapas, Guerrero, Oaxaca, Puebla, Quintana Roo, Tabasco, Veracruz and Yucatan. This research will look at the goals and initiatives of this plan as well as address the failings of the plan and the potential consequences for the region. To better understand development of this nature, this research will also look at the theories that promote economic development in the periphery and the agendas of those institutions that support the Plan Puebla Panama. The consequences of previous development will be discussed to support the position that this plan will not be beneficial to the environment or the people of the region.

The Dynamics of a Mexican American Transnational Identity

Eudelio Martinez Jr., Undergraduate, McNair Scholar

Dr. Frederick Strange, Department of Anthropology

It remains apparent that although continually pressured and inevitably expected to do so, the Chicano/Mexicano populace of the US has not assimilated, to a large extent, into the American mainstream. Chicano/Mexicano pockets continue to remain culturally distinctive even though some have now been in the US for many generations. These groups of people have continued to practice their traditional customs regardless of the pressures to adopt American mannerisms. While a degree of Americanization is certainly evident, especially within the younger generations, many of these accounts have been over-emphasized and incorrectly described. This project is an attempt at supporting an alternative model of ethnic integration, one that unlike Assimilationist Theory portrays this group of people for what they are, an ethnic group living inside the US with its own traditions and mannerisms, some coming completely from their native culture, some coming from the culture in which they now live, and some representing an innovative mixture of the traditions and mannerisms of both cultures.

The Cultural Significance of Hair Length in the U.S. Today

Joy M. Scott, Graduate

Dr. Elwyn LaPoint, Department of Anthropology

Hair is one of the few physical traits of the human body that is readily noticed and can be easily modified. Thus changes to it have been a way to show status (class, gender, age), group cohesiveness, emotional state and political ideology. In current American culture, where anything "goes," this study looks for indications that symbolic norms still exist. More specifically, do women change their hair length when encountering a life-changing event? Women volunteers were asked to respond to an on-line survey, which considered the following variables: relationship changes, children, time pressures, age, and the influence of others. Results will be discussed.
Ethnic Identity and Indigenismo in Postrevolutionary Mexico

Cuauhtémoc Mexica, Undergraduate, McNair Scholar

Dr. Fred Strange, Department of Anthropology; Dr. John E. Kicza, Department of History, Washington State University

The issue of ethnic and national identity in Mexico is one that has gone through many transformations and is consistently challenged. Its case within Latin American nomenclature is particularly unique for its polemical and prolific contributions in the search of identity. This research examined the post revolutionary formation of a new identity that had *mestizaje* (miscegenation) as its focal point in creating a “new and progressive” Mexico from the turbulent years of the Mexican Revolution (1910-1920). The issue of ethnic and national identity in contemporary Mexico is one that is still being debated and as such an emphasis will be placed on the phases that it has gone through throughout the centuries.

Perceptions of Malaria Among Western Populations and the Wandamba of Eastern Africa: A Cross-Cultural Comparison

Keirsten E. Snover, Undergraduate

Dr. Jerry Galm, Department of Anthropology

This study employs a cross-cultural comparative approach to examine the varying perceptions of disease common in people who reside in developed and less developed nations. A contrast is made between the perspectives on malaria maintained by Western populations with those of the Wandamba people of the Kilombero Valley in East Africa. In Western populations, epidemiological interpretations are used to explain and understand the cause, transmission, symptomatology, treatment, and prevention of malaria. The Wandamba interpretation does not completely correspond to the Western model, yet is consistent with views held by most tribal people in the world today. In the Wandamba perspective, disease labels are constructed in an alternative form, resulting in a breakdown of the symptoms of malaria into separate categories of disease, each requiring individualized treatment. The medical interpretations of malaria among these two sample groups emphasize the variation in cultural perceptions of contagion and curing common in the modern world. The misunderstanding inherent in these different perceptions of disease contributes to the limited success of Western approaches to treating diseases in less developed nations.
ORAL PRESENTATIONS
AFTERNOON SESSION
ROOM 107

Abstracts appear in chronological order, as they appear in the schedule on pages 7-8.
José Cadalso y Vazquez: Kindeled Light of The XVIII Century
Claudine E. Richardson Fraser, Undergraduate
Dr. José García M. Sanchez, Dr. Guillermina Walas-Mateo, Department of Modern Languages

*Presentation Given in Spanish*

The Spanish Enlightenment period is known as a moment in time that nourishes new philosophical, social, and representative ideas. José Cadalso y Vázquez is known as a Spanish soldier and writer who died in war at the hands of a faulty cause. What few fail to realize is that Cadalso’s life, as a soldier and writer, during a period that flourished new governmental ideas and retired to old ideology of Spain would typify Spanish Enlightenment. Nevertheless, Cadalso spirited novels adopted the ideology of Spanish Antiquity in order to cover his sensualistic nature, criticism, and parody, which would portray his great disdain and love for animation and populace; therefore, becoming himself the representative of the typified Enlightenment movement. Known by many as the archetypal example of this period, this presentation attempts to focus on the factors (his cosmopolitan life, amorous affairs, and tackles the subject matter of one of his literary plays, “Don Sancho García”) that led Cadalso to the title of the Kindled Light of the Spanish Enlightenment and the Rising Dawn of Romanticism.

Popul Vuh: The Sacred Book of the Maya People
Jessica Sarr, Undergraduate
Dr. José García M. Sanchez, Dr. Guillermina Walas-Mateo, Department of Modern Languages

*Presentation Given in Spanish*

For this presentation I will discuss the significance and the history of the *Popol Vuh*, a sacred book of the Mayas. To start, I will present a brief overview of the history of the book and its origin, including what is known about the first translators to Spanish and French like Father Ximenez, who happen to find the book in a mysterious way. This will be expanded to included and mention several theories about the work itself, such as how it was written and translated over the years. Although much has been discovered and said about the *Popol Vuh*, there is still controversy as to its significance and importance to the people of today in Guatemala as well as to the ancient Mayas. There are several theories and assumptions of the book. Many authors and scholars who have studied the ancient texts of the Mayas and exclusively the Maya culture note the similarities between the Bible and the *Popol Vuh*. However, by the same token, they admit and acknowledge the unique style and cultural specifics that prove its origin in the Americas.
Simon Bolivar in Today's Venezuela

*Amy McFarlane, Undergraduate*

Dr. José García M. Sanchez, Dr. Guillermina Walas-Mateo, Department of Modern Languages

*Presentation Given in Spanish*

What is now a place full of conflict, poverty and problems was once a new land, a land of opportunity, it was the Grand Colombia. It was there that a man imagined, dreamed, and wrote of a place full of union and peace. That man was Simón Bolívar. By reading his letters, discourses, and proclamations, it is easy to learn of his political ideas and see the difficulties that he saw with Spanish rule, and how the Catholic Church controlled the people and their money during the Colonial Regime. Later, soon after the independence, Bolívar came to understand the difficulties of establishing a democratic government. What he wanted was an America unified in heart, subject to one law, and guided by the torch of liberty. In this presentation I will approach some of Bolívar's major discourses such as “La Carta de Jamaica”, and I will analyze how his thoughts still influence today's Venezuela.

Rosario Ferréé y la Traducción

*Doretha D. Frederickson, Undergraduate*

Dr. José García M. Sanchez, Dr. Guillermina Walas-Mateo, Department of Modern Languages

*Presentation Given in Spanish*

Who is Rosario Ferré in literature? How has her upbringing in Puerto Rico and her time studying and working in the United States shaped who she is and what she writes? Ferré has published in both Spanish and English. I will discuss some of the challenges she faced as a bilingual author and analyze three of her latest poems directly related to the topic of language and bilingualism.

Zapata Lives: Chiapas and the Zapatista Struggle

*Scott Estes, Undergraduate*

Dr. José García M. Sanchez, Dr. Guillermina Walas-Mateo, Department of Modern Languages

*Presentation Given in Spanish*

On January 1, 1994 a group of Mayan Indians from Mexico's southern state of Chiapas emerged from the Lacandona Jungle, taking control of four towns. They called themselves Zapatistas, after the great hero of the Mexican Revolution, Emiliano Zapata. All wearing black ski masks to cover their true identity, they rose up to proclaim “¡Ya Basta!,” or “Enough is Enough.” That which was secured for the Mexican campesino in the Revolution had been steadily loosing ground since the middle of the century, and with the implementation of NAFTA, it appeared all hope of campesino rights was gone. The Zapatistas are fighting for the same rights as Emiliano Zapata and others of the Revolution: an end to exploitation of land and of the campesino in Mexico. Although they fight for the same goal, their methods are very different. In fact, the Zapatista uprising has been called the first “post-modern revolution.” In this presentation, I will give the history and background land struggle in Mexico, focusing first on Zapata and the Revolution of 1910 and next on the Zapatistas and their enigmatic spokesman Subcomandante Insurgente Marcos.
River Crossing: The Literary Healing Powers of Creative Non-Fiction

Kerri A. Ladish, Undergraduate
Dr. Paul Lindholdt, Department of English

The idea of literature possessing healing powers for those who read, write and hear it is not a new idea. For centuries we as a culture have been basking in the healing powers of literature, participating in the art of the oral literary tradition, reciting written stories and writing our own. Creative non-fiction, by definition, is the act of infusing imagination and creativity into the reality of our lives; learning to look at our past and present circumstances through new lenses of perception, in order to gain fresh insight and unique understanding. When creativity becomes effectively fused with non-fiction, the potential for literary healing significantly increases. In a process much more intimate than simply placing words on a page, the writer traipses through their own psyche, creating, re-shaping, and organizing both their emotions and memories. Thus, as a writer writes, they simultaneously heal.

“By a Lady”: An Apology for Jane Austen

Lydia C. Newell, Undergraduate
Dr. Judy Logan, Department of English

This remarkable author wrote just six novels, publishing them under the demure nomenclature of “By a Lady.” Yet in 1995—two centuries after her birth—Jane Austen was named one of Entertainment Weekly’s “Top Ten Entertainers.” You may know her work from the recent film adaptations of Pride and Prejudice, Sense and Sensibility, Emma, Mansfield Park, or Persuasion. These novels and their subsequent movies have attained lasting popularity, despite the remote social milieu they portray. What do these stories offer to a postmodern American audience? Novels like Pride and Prejudice or Emma certainly recreate Austen’s world, but these pieces are not necessarily just escape fiction or eighteenth century “ChickLit.” Scholars like Marilyn Butler capture Austen’s place in the aesthetic and epistemological “War of Ideas” that plagued the end of the eighteenth century; Austen’s work engages the artistic controversies of her age. Yet we may also read such novels with an appreciation for Austen’s ability to penetrate the facades and follies that accompany social interaction. Austen deftly presents societal microcosms, “truths universally acknowledged,” and hilariously perceptive assessments of the human condition.
ORAL PRESENTATIONS
AFTERNOON SESSION
ROOM 114

Abstracts appear in chronological order, as they appear in the schedule on page 8.
Gilman’s “The Yellow Wallpaper” and the Potential Power of Women in the Beginning of the Twentieth Century: Curriculum for the Secondary Classroom

W. Scott Cheney, Graduate  
Dr. Susan McGinty, Department of English

Although Charlotte Perkins Gilman’s “The Yellow Wallpaper” was seen as Gothic in nature at its publication and has been read as a story about a woman without power, I will show that this Gothic and feminist work shows a woman slowly gaining power in her own world, thus commenting on the potential power of women in the beginning of the twentieth century. Additionally, I will outline a curriculum that can be used in the secondary classroom that raises questions about gender, authority, and the power of literature in America.

The Convolutions of Power in Edith Wharton’s Novels

Elizabeth Malia, Graduate  
Dr. Judy Logan, Department of English

While Edith Wharton’s novels have been touted as major pillars of the feminist literary sphere, a closer, less politicized reading indicates that the author’s intent was to study the human condition. She focused upon the choices that individuals made and the results of those choices. More to the point, she used the manipulation of personal, social, and economic power to create the choices and the reactions. Wharton was not a standard bearer of the Women’s Movement in her lifetime and her work clearly shows that this was a secondary consideration. Edith Wharton personally serves as a solid example of a woman achieving self-realization against her background and training, but her works go beyond gender issues to discuss how people become trapped in conventions and security. This paper will explore first the feminist criticism that overtook Wharton scholarship, and then show how the novels and the characters cover more ground than she has been given credit for in criticism.

Understanding the Structures, Values, and Evolution of the Mexican Family

Gloria A. Lopez, Undergraduate  
Dr. Gilbert Garcia, Department of Chicano Education

It is essential to understand the Mexican family and the ongoing changes that have occurred since the increase in migration to the United States. In the past, sociologists have misinterpreted the Mexican family as a whole by using stereotypes and applying Eurocentric perspectives on the population. Through a literature review of past and present studies, this study examines the transformation of the Mexican family in the United States. The literature review includes the major trends associated with the changes and the social and economic influences on the Mexican Family.
The Bible According to Caravaggio: The Influence of Counter Reformation Catholicism on a Baroque Master

*Tamara M. Berry, Undergraduate*
*Dr. Barbara Miller, Department of Art*

There appears to be little connection between the life Michelangelo Merisi da Caravaggio led and the works of art he produced for the Catholic Church. In his paintings, Caravaggio remains fairly true to the literal text of the Bible in concordance with the decrees of the Council of Trent, but also fills his work with a touching sense of humanity that is in contradiction to the violent life he led. Caravaggio’s personal theology remains elusive while his paintings clearly convey a strong sense of humanistic and spiritual accessibility under the request and compensation of the Catholic Church.

A Wrinkle in Time: Portrait Sculpture Images of Aging in the Amarna and Roman Period

*Denise R. Hinnenkamp, Undergraduate*
*Dr. Barbara Miller, Department of Art*

Portrait sculpture in two cultures, Egyptian in the Amarna Period and Roman is compared and contrasted for types, societal perceptions and physiological impact on art images. Modern gerontological frameworks are used to examine both cultures for constructs that mirror current beliefs about aging.

A Whole New World: The Changing Nature of Interracial Relationships Throughout U.S. History

*Santral Combs, Undergraduate, McNair Scholar*
*Dr. Bill Youngs, Department of History*

From the first settlers in America, to slavery, and on into the 20th century interracial relationships have been controversial. Despite this fact interracial relationships have been an important part of American history. The goal of my research is to explore the nature of these relationships and study how they have varied considerably from slavery, to the fur trade, and to the present day.
Exploring Community-Based Organizations and Collaborations in Social Welfare for Adolescents in Spokane, Washington

Alwyn Jackson Jr., Undergraduate, McNair Scholar
Dr. Lisa Avery, School of Social Work

The term “community organizing” covers a wide spectrum of activities and approaches. In terms of strengths, community-organizing methods can facilitate grassroots activities to recruit potential members, bring groups together, and accomplish substantial community action (Castelloe, Watson & White, 2004). The Spokane community has a long history of community development on behalf of adolescents. This research explored the Emergence of Supportive Social Services in the twentieth century and examined current trends in community organizing on behalf of adolescents in Spokane. The study addressed the following research questions: (1) can there be collaboration among the local agencies in Spokane whose programs provide services to adolescents? And (2) what needs are there in Spokane in regards to adolescents?
ORAL PRESENTATIONS

AFTERNOON SESSION

ROOM 302

Abstracts appear in chronological order, as they appear in the schedule on page 8-9.
**Punkism: Performing Theory**  
*Michael C. Darigol, Undergraduate*  
*Dr. Todd A. Hechtman, Department of Sociology*

The excerpt of Punkism to be performed is an example of Performing Theory. Performing Theory is a fusion of Sociology and Theatre. The goal is to educate and entertain simultaneously in a more concrete way than an academic paper. Sociological theory is embodied in and/or challenged by characters.

**Music in Epic Genres**  
*Charles L. Green, Undergraduate*  
*Dr. Jonathan Middleton, Department of Music*

In epic movies such as the Lord of the Rings trilogy or the Star Wars trilogies, the music enhances the experience people have. Each scene matches a musical theme, each character relates to a melody and the majesty of the scenery during the transitions must be met by an equally majestic orchestral experience. In the play Henry V, the same concepts apply. Researching genres added a great deal to the development of music that I composed. The setting for the Lord of the Rings movies and books are just like the middle ages in Europe; the period during which Shakespeare sets Henry V. Even parodies, like Monty Python and the Quest for the Holy Grail can be good examples of how to write for action movies. With a thorough understanding of the play and of how music from these movies works, I was able to compose and produce the sound that was appropriate for the EWU production of Henry V.

**Apollo and Oedipus**  
*Sean Puno, Undergraduate*  
*Tom Mullin, Department of Electronic Media and Film*

**Attention: Film contains violent scenes.**  
In 6 minutes and 40 seconds, Apollo and Oedipus comically explores a battle between man and nature. The use of light and music combine, engaging the viewer to become a part of a surrealistic world. By combining powerful imagery with aural elements, the filmmaker creates a unique and fascinating filmic world inviting the audience into scopophilic and voyeururistic experience.
An Artistic Battle

David F. Cubbage, Undergraduate

Tom Mullin, Department of Electronic Media and Film

The Battle of Algiers is a powerful example of political filmmaking, recounting the Algerian revolt against the French. Made by Italian director Gillo Pontecorvo, and commissioned by the new Algerian government, it uses a documentary style and primarily amateur actors, giving the illusion of reality. Though considered a great example of unbiased, realistic filmmaking, this presentation will contradict that view. It is actually an art film that heavily favors the Algerian side. The film portrays the Algerians as freedom fighters trying to win their independence from an oppressive colonial state. Through shot selection and style, choice of actors, music, and chronology of events, Pontecorvo crafts a formalistic, ideologically driven film.
POSTER PRESENTATIONS

2ND FLOOR,
WOMEN’S STUDIES LOUNGE

Abstracts appear in chronological order, as they appear in the schedule on pages 9 - 10.
Microtopography and Dendrochronology of Ponderosa Pines at Turnbull National Wildlife Refuge

Jeffrey Anderson, Undergraduate; Kathlene A. Peck, Undergraduate
Dr. Richard L. Orndorff, Department of Geology

In order to test the hypothesis that microtopography influences growth rates of Ponderosa Pines (Pinus ponderosa) in the Channeled Scablands, we collected cores from mature trees in upland, lowland, and intermediate locales in Turnbull National Wildlife Refuge, eastern Washington. Annual tree rings were measured and recorded. Total core length varied from 163 mm to 299 mm, and age varied from 60 to 115 years. Most growth rates ranged from 1.6 to 2.8 mm/year, with a single notable outlier of 4.0 mm/year. We plotted annual ring width and calculated 10 and 20 year moving averages. We downloaded local climate data for 1895 to present from the National Climatic Data Center and computed 10 and 20 year moving averages for annual and seasonal precipitation and temperature. Trees with higher calculated growth rates sit in lowlands and near perennial ponds. Many trees display consistent patterns. For example, a broad peak in ring width during the 1930’s corresponds to a general rise in spring precipitation and spring and summer temperatures.

Rate of PGlo Plasmid Loss in Absence of Selective Pressure in Escherichia coli HB101

Jennifer J. Baldwin-Bonney, Undergraduate
Dr. Prakash Bhuta, Department of Biology

Previous studies have shown that plasmids can exert a metabolic burden on bacteria if no selective pressure is exerted on the bacteria to keep the plasmid. This study tested the rate of loss of PGlo plasmid in Escherichia coli. PGlo plasmid has a site containing a green fluorescent protein marker. This marker can be used to test the presence of the plasmid in bacteria, by use of UV light. Cultures maintained in LB Broth medium were compared with those maintained in a Phosphate Buffer Solution. The rate of loss of the PGlo plasmid from Escherichia coli was calculated for both media over a time period of 134 hours. Both media presented a loss of 20% of the glowing colonies. My results suggest that the PGlo plasmid puts a strain on the bacteria, and is thus significantly unstable.
Unexpected Formation of Novel Organic Molecules from Combination of Sodium Dicyanamide and Hydroxyl-Substitued Pyridine-N-Oxides

Marianne M. Conner, Undergraduate; John H. Kibbey Undergraduate
Dr. Jamie L. Manson, and Dr. Ernest C. McGoran, Department of Chemistry and Biochemistry

We have recently synthesized two novel organic molecules by combining either 2-[1a] or 3-hydroxy pyridine-N-oxide [1b] with sodium dicyanamide in water/ethanol mixtures. X-ray quality single crystals of 1a and 1b have been obtained and their structures determined. Within the crystal lattice of these compounds is the spectacular conformational arrangement of the individual molecules that we believe is a result of crystal packing forces. This conformation may in fact be observed in the solid state and we are conducting further analyses using nuclear magnetic resonance spectroscopy and computational methods. Current results, including proposed mechanisms for the formation of 1a and 1b, will be presented.

Microsatellite DNA Analysis of Rainbow Trout in Cottonwood Creek, Whitman County, Washington

Connie M. Fox, Graduate
Dr. Allan T. Scholz, Department of Biology

There are two varieties of rainbow trout, an inland variety known as redband rainbow trout (Oncorhynchus mykiss gairdneri) and a coastal variety (Oncorhynchus mykiss irideus). Redband rainbow trout are an interior form of rainbow trout found in the Columbia Basin. Most rainbow trout of hatchery origin are derived from coastal stocks rather than inland populations. The purpose of this study was to determine, using microsatellite DNA analysis, if the rainbow trout residing in Cottonwood Creek, Whitman County, WA, are of the coastal or inland variety. Thirteen microsatellite loci were examined and allele frequencies were observed for each locus. The Cottonwood Creek allele frequencies were compared to the allele frequencies of six other trout populations in eastern Washington: two coastal varieties, a population of cutthroat trout and three redband rainbow trout populations. The rainbow trout in Cottonwood Creek were found to be very similar to the coastal variety of rainbow trout occupying Buck Creek, a tributary to the Little Spokane River, Pend Oreille County, Washington.

Seasonal Water Quality Analysis of the Spokane River Basin

Cassia A. Freeman, Undergraduate; Daniel E. Davis, Undergraduate; Zach I. Moore, Undergraduate
Dr. Jeff Corkill, Department of Chemistry and Biochemistry

A study of the seasonal variation of chemical (i.e. ions) and physical (i.e. dissolved oxygen and turbidity) composition of water obtained from seven sites along the Spokane river, Latah creek, the Little Spokane river and drinking tap water from Spokane, Couer d'Alene, Cheney and Eastern Washington University.
Elk and Private Property in Cheney, Washington: Use and Landowner Perceptions

Heather E. Fuller, Undergraduate, McNair Scholar
Dr. Margaret O’Connell, Department of Biology

As urbanization increases, so does the encroachment of human activity on wildlife. The increased instances of human/wildlife interactions can be both positive and negative, presenting wildlife managers with a unique and complex dilemma. In southern Spokane County several hundred rocky mountain elk (Cervus elaphus nelsoni) are found on both private property and Turnbull National Wildlife Refuge. The goal of my study was to assess elk use of private property, land use practices attracting elk, damage to private property, and landowner opinion of the elk in the area. I conducted a twelve question survey either by mail or phone with 150 landowners with property surrounding Turnbull National Wildlife Refuge. There is a positive correlation between property size, increased elk use, and a negative opinion of elk on private property.

Joint Mobilization and Active Exercise for a Patient with Chronic Neck Pain and Shoulder Impingement: A Case Report

Justin E. Harris, Graduate
Dr. Byron Russell, Department of Physical Therapy

Background and Purpose: Cases of shoulder impingement syndrome occurring concomitantly with chronic neck pain are discussed in the literature but not well documented. The purpose of this report is to present the conservative management of a patient with chronic neck pain symptoms and shoulder impingement syndrome where joint mobilization and active exercise were the primary therapeutic interventions. Case Description: The patient was a 46 year-old female office worker with chronic neck pain and right shoulder pain of acute onset that was exacerbated with specific positions and activities. The shoulder pain interfered with her sleep and daily functioning. Intervention: Specific cervical spine mobilizations were performed for approximately 15 minutes duration each treatment session. An active exercise program involving shoulder girdle strengthening and stabilization was initiated in the clinic and progressed to include a home program as well. Outcomes: The patient reported little change in neck pain but increased awareness of neck dysfunction. Diffuse shoulder pain was dramatically reduced with treatment, but localized shoulder pain in the subacromial space persisted. Neck Disability Index scores showed no statistically significant change.
The Molecular Analysis of Ectomycorrhizal Fungal Communities

Cassie L. Hebel, Undergraduate, McNair Scholar
Dr. Suzanne Schwab and Dr. Prakash H. Bhuta, Department of Biology

Ectomycorrhizal (ECM) fungi form symbiotic relationships with the roots of plants. Traditional analysis of mycorrhizal fungal communities depended on surveys of above-ground fruiting bodies. Due to ambiguity, this technique does not give an accurate reflection of the diversity or species composition of below-ground ECM fungal communities. Molecular analysis gives the most accurate identification of individual fungal communities, and most commonly used molecular technique used in the analysis of fungal communities is DNA fingerprinting. The purpose of this study was to identify fungal species using DNA fingerprinting to analyze the species composition of ECM fungi in the dry ponderosa pine forests of the inland Pacific Northwest. The results of this study confirm that DNA fingerprinting is a useful tool for the identification of mycorrhizal fungal species.

A Bioinformatics Approach to the Diagnosis of Mental Retardation Syndromes and Birth Defects

Dawn R. Maghakian, Graduate
Dr. Sidney K. Kasuga, Department of Biology; Dr. Bassem A. Bejjani, Signature Genomic Laboratories, LLC.

Sequencing of the human genome is essentially complete and will prove to be invaluable in molecular diagnostics. Specifically, megabase (Mb) sequence alterations commonly associated with Mental Retardation syndromes and Birth Defects may be detected by comparative genomic hybridization (CGH) using human DNA contained in bacterial artificial chromosomes (BAC) as a target for comparison. In order to select diagnostically significant sequences, exact genomic location of the target must be verified. Sequence characteristics such as gene content, presence of repetitive sequences and sequence motifs add to our diagnostic accuracy. In this study, a bioinformatics approach to select BACs that span chromosomes 19 and 20 was developed. With this approach, we identified uniquely aligned BAC clones with a 1.5 Mb average resolution and a 0.5 Mb diagnostic sensitivity – an unprecedented level of diagnostic resolution. We anticipate that our bioinformatics approach will provide a rapid and cost-effective method of sequence analysis in the production of a diagnostic CGH microarray spanning the human genome.
Kinematics of Faults in the Herrick Stock, Northern Idaho, and Implications for the Movement History of the Lewis and Clark Fault Zone.

Wayne P. McMacken, Undergraduate
Dr. P. Ted Doughty, Department of Geology

Kinematic analysis of minor structures within the Herrick stock, near St. Maries Idaho, provides new evidence for the timing and style of deformation along the Lewis and Clark line. The Herrick stock is a Tertiary pluton that has been offset -25km in a right-lateral sense by the St. Joe fault. The Herrick stock contains two sets of geologic structures. The first are thin (<4cm) ductile thrust faults that strike to the northeast (55° - 75°) and record compression along a northwest-southeast direction. The second are steeply dipping conjugate fracture sets (2 or more) that are lined with chlorite and thin microbreccia. The northeast striking fractures (10° - 40°) contain generally down-dip slickenlines and record extension along a northwest-southeast direction. The thrust faults can be explained by deformation of the pluton during Eocene right-lateral shear along the St. Joe fault. In contrast, many of the steep extensional fractures may record a younger episode of deformation, or movement along the north-trending White Rock detachment fault, south of the study area.

Immunologic Study of Chronic Villitis in Human Placentas

Bonnie J. McMahill, Graduate
Dr. Sidney Kasuga, Department of Biology

Chronic villitis occurs in up to 14% of all placentas. This is a condition where inflammatory cells accumulate in the placenta, preventing nutrient exchange from taking place. The lack of nutrition to the fetus can cause miscarriages, fetal growth retardation, and fetal distress. A small percent of cases may be caused by a viral infection, but the majority of cases do not have a known cause and are termed villitis of unknown etiology (VUE). Most studies favor that VUE is the result of an immune response in which the mother's lymphocytes infiltrate into the placenta. The type or types of immune responses have not been determined. I am conducting a retrospective review of cases that have a diagnosis of VUE. A panel of immunohistochemical stains is being performed on paraffin sections of each placenta. These stains have been selected to determine the phenotype of the inflammatory cells. The phenotypes show a correlative relationship to specific immune responses.
Lumbar Central Canal Stenosis with Left Lower Extremity Radiculopathy: A Case Report

Chrisandra L. Murphy, Graduate
Meryl Gersh, Department of Physical Therapy

Degenerative lumbar spinal stenosis (LSS) is a very common and debilitating condition. Treatment is either approached conservatively, with physical therapy, or surgically. However, there is limited research identifying the indications for selecting conservative or surgical treatment. The purpose of this case report is to present a single case of degenerative lumbar spinal stenosis and the outcomes of the physical therapy management. The patient is a 65 year old male with a chief complaint of low back and left leg pain that prevents him from walking short distances. A diagnosis of LSS was confirmed by an MRI. This patient received ten physical therapy treatments over four weeks. At the time of discharge the patient had not met his goals and ultimately elected to have a decompression surgery. At 12 weeks post-operatively, the patient reported full return to function without pain. Overall, physical therapy was unsuccessful in meeting this patient's goals. Following the surgery the patient reported decreased pain at one week post operatively and full return to prior level of function at twelve weeks post operatively.

Gene Regulation: Induction of β-Galactosidase in Escherichia Coli, Comparative Analysis Between Two Strains

Claudine E. Richardson Fraser, Undergraduate, McNair Scholar
Dr. Haideh N. Lightfoot, Department of Biology

Escherichia coli (E. coli) is a lactose fermenting, gram-negative, rod shaped bacterium, and a member of the normal intestinal flora in most animals. This study examined two strains of E. coli using gene expression for β -galactosidase enzyme, which digest lactose sugar forming galactose and glucose. The lac operon is activated in the presence of specific inducer, such as lactose or IPTG. The induction of β -galactosidase activity was measured in two different well-known laboratory strains of E. coli. Each strain was grown overnight and the bacteria were washed, and suspended in minimal Davis medium with glycerol. Lactose alone, lactose and glucose, IPTG, and glucose alone in day cultures induced the lac operon. After incubation, of at least one hour, the level of β -galactosidase activity was measured using ONPG (an artificial substrate for the enzyme), which produces a yellow nitrophenol color. One strain produced the nitrophenol coloring more rapidly than the other strain, indicating that the degree of induction of β-galactosidase was different in different strains of E. coli. This is useful information for developing experiments for the detection of this or other enzymes for undergraduate laboratory teaching. Level of gene activity may be different from one strain to another affecting the time and the conditions for testing, which need to be considered in the design of these experiments.
Stable Isotope Analysis of Banks Lake

*Joseph M. Smith, Graduate*

Dr. A. Ross Black, Department of Biology

This study investigated the trophic position and relative use of energy for aquatic organisms in Banks Lake. Banks Lake is a water storage reservoir that is drawn-down 2m annually located in Central Washington State. Fishes and invertebrates from the pelagic (open water) and littoral (near shore) regions of the lake were collected and then dried and ground to be analyzed for \( ^{13}\text{C}/^{12}\text{C} \) and \( ^{15}\text{N}/^{14}\text{N} \) ratios. \( ^{15}\text{N}/^{14}\text{N} \) ratios are used to determine the trophic level of an organism. \( ^{13}\text{C}/^{12}\text{C} \) ratios are used to determine proportional use of littoral and pelagic energy sources. The highest trophic level of a fish with 100% pelagic diet is 3.15 from kokanee. The highest trophic level of a fish with a mixed diet is 4.4 from burbot. The highest trophic level of a fish with 100% benthic diet is 4.28 from small mouth bass. Benthic carbon is an important source of energy in Banks Lake due to stable isotope indications of notable benthic consumption by fishes and invertebrates. These results stand in contrast to carbon utilization in Lake Roosevelt that has a 15m draw-down that limits benthic productivity.

Engineering Properties of Mima Mound Soils from Turnbull National Wildlife Refuge, Eastern Washington

*Toni Voile, Undergraduate; Christina Tuggle, Undergraduate; James Scott, Undergraduate*

Dr. Richard L. Orndorff and Dr. P. Ted Doughty, Department of Geology

Mima mounds are enigmatic structures that occur as clusters of low, rounded hills. Mound origin is hotly debated with three primary hypotheses: (1) seismic activity and redistribution of fine-grained surface sediment, (2) periglacial mounding associated with freeze/thaw cycles, and (3) burrowing by extinct Ice Age rodents. We collected soil samples at three horizons within 1-meter-high mima mounds in the northern section of Turnbull National Wildlife Refuge; we additionally collected soil blocks for in situ consolidation tests. We analyzed samples for engineering properties (particle size distribution, compaction, consolidation, unconfined compressive strength, and permeability) under the hypothesis that such properties may yield clues to mound origin. Mounds were predominantly fine sand and silt with scattered basalt gravel. Optimal water content for compaction was less than 10%, and optimal compressive strength corresponded to a water content of 15% with a brittle/ductile transition at 20%. Consolidation experiments yielded the most intriguing results, demonstrating a very loose structure that is probably most consistent with a seismic origin.
Evaluation of the Components of Speed in the Sprint Events  
Clayton R. Ward, Undergraduate  
Dr. Jeni R. McNeal, Department of Physical Education, Health & Recreation

The task of sprinting requires development of 3 distinct components which can only be evaluated through timing of precise intervals during the sprint. Timing information allows the calculation of velocity of the athlete along the course, which can then be graphically depicted. The nature of the velocity-distance graph yields information regarding the development of these three critical components: 1) acceleration, 2) maximal velocity, and 3) speed-endurance. This information is critical for the coaching staff who will utilize the results to prescribe specific training methods for the development of each of these 3 areas. This study was conducted using male and female collegiate sprinters during their indoor season. Infrared timing gates were positioned at 15 m intervals along a 75 m course. Athletes performed one maximal effort sprint approximately every 3 weeks from the beginning of the indoor season through to the competitive phase. This poster will focus on the results from three athletes who demonstrated typical changes in performance of these three components over the duration of the study.

The Impact of Adult Attachment on Mental Health  
Tricia L. Adams, Graduate  
Dr. Kayleen A. Islam-Zwart, Department of Psychology

Attachment has been associated with an individual's mental and emotional health (Fongy, 1999; Vander Kolk, Perry, & Herman, 1999) Research has shown that the type of attachment that an individual forms can influence his or her experience and expression of anger (Mikulencr, 1998). Secure individuals have been found to be more adaptive in their response to anger. In contrast, insecure individuals experience anger in more dysfunctional ways. The literature has also shown adult attachment style to be associated with an individual’s experience of depression (Searle, 1998). The current study is an attempt to address an association between attachment and anger and depression in men and women. Participants include male and female EWU students who completing a packet of questionnaires. Fearful attachment is expected predict overall an increased level of anger and depression in men and women. Women are predicted to show higher levels of depression with regards to fearful attachment than men. Men who endorse fearful attachment are predicted to show higher levels of anger than women.
Assessing Ethnic Experience and Intercultural Sensitivity with the Intercultural Developmental Inventory

Bruno Baltodano, Undergraduate, McNair Scholar, M. Khalil Islam-Zwart, Graduate

Kayleen Islam-Zwart, Ph.D, Department of Psychology

Studies have shown that, in general, individuals confront cultural difference in predictable ways as they learn to become more competent in intercultural communication. Identification of underlying cognitive orientation toward cultural difference can facilitate predictions about behaviors and attitudes. Diversity is not a choice, but our responses to it certainly are. Effective communication between cultures therefore is a matter of social concern. The present study is an attempt to assess the developmental progression of students in a Psychology of Women course by means of M. Bennett’s Developmental Model of Intercultural Sensitivity (Hammer & Bennett, 1999, 2001). The DMIS is predicated on the idea that experience of cultural differences can be enhanced by first identifying the level of diversity development. Central to the DMIS is the understanding that individuals integrate their experiences and understanding of cultural differences in progressive stages, moving from ethnocentric perspectives to ethnorelative perspectives. 38 students in an undergraduate Psychology of Women course completed the IDI at the beginning and end of the quarter. Results will be examined using an Repeated Measures Analysis of Variance. Discussion and implications will be provided. It is anticipated that results will provide both an opportunity to restructure diversity perspectives and an appreciation and understanding of diverse people.

Correlates of Orientation Disclosure in an Adult Homosexual Sample

Darlene Berner, Undergraduate, Michael Johnson, Alumni, Lucinda Mack, Undergraduate

Dr. Nick Jackson, Counseling, Educational and Developmental Psychology; Russell L. Kolts, Department of Psychology

Despite the social changes regarding homosexuality that occurred during the 20th century, there are still potential social consequences faced by the Gay, Lesbian, Bisexual, or Transgender (GLBT) individual contemplating openly expressing his or her sexual orientation. The research literature on this topic has investigated various aspects of disclosure, including identifying members of social networks to whom GLBT’s are most and least “out,” various definitions of “outness,” reasons for GLBT’s to disclose, and some correlates of disclosure. Studies that have examined factors related to the degree of orientation disclosure have identified correlates such as education, income, age, and geographical location. The current study attempts to examine other factors related to GLBT orientation disclosure. Questionnaire data was gathered from 290 GLBT individuals from various communities in the northwestern United States. As with previous reports, significant relationships were found between the participants disclosure of their sexual orientation to others and both age and income. Additionally, significant patterns were observed between degree of disclosure and religious affiliation. Potential future research will be discussed.
Rhetorical Analysis of President George W. Bush’s Speech to Cincinnati
Stefanie-Elisabet Board, Undergraduate
Dr. Patricia Chantrill, Department of Communication Studies

On October 7, 2002, President George W. Bush addressed a Cincinnati audience and strategically connected the country of Iraq, more specifically, Saddam Hussein, to the terrorist attacks of September 11, 2001. According to the presidential theory set forth in Jeffrey Tulis’ book “The Rhetorical Presidency,” Bush’s approach to addressing the nation conflicted with the Founding Fathers’ plan for the executive branch of government. My research will analyze the rhetorical strategies used in Bush’s Cincinnati speech and compare his attempts to convince a nation to go to war with Iraq with the basic premise of Tulis’ theory.

Will Gratitude Increase After Recalling Redemptive Memories?
Crystal Contreras, Undergraduate, McNair Scholar
Dr. Philip Watkins, Department of Psychology

The purpose of the present study is to determine the effect of redemptive memories on trait gratitude. A redemptive memory is simply a negative event that was transformed into a positive event. In addition, trait gratitude is the tendency to be or have gratuitous qualities. Participants in the study were given the GRAT, an assessment tool used to measure gratitude, then they were assigned to one of three conditions (positive, redemptive, and neutral) for memory recollection. Following the memory recollection task subjects were administered the GRAT for the second time. Results suggested a relative increase between redemptive memories and trait gratitude, but due to the low number of participants there were some ambiguities as to the cause of the increase on the GRAT. Specific results and future directions will be discussed in greater detail.

Development of a Self Report Inventory of Malingered Pathology
Corey M. McNally, Undergraduate; Ashley H. Stranberg, Undergraduate; Michael R. Custer, Undergraduate; Catherine M. Lasher, Undergraduate
Dr. Kayleen A. Islam-Zwart, Department of Psychology

“Malingering is the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives” (American Psychiatric Association, 1994). There is a lot of information on malingering in forensic populations; however, research is lacking for clinical settings. This is especially true when conducting disability evaluations. Furthermore, most current malingering assessments are formatted as interviews (e.g., SIRS; Rogers, Bagby, & Dickens, 1992). Thus, the need for a fast, easily administered and quantifiable measure of malingering is necessary. The purpose of the current study was to design a self-report measure of pathology and norm it on college students. Consisting of a variety of scales, the instrument is designed to detect malingering when individuals exaggerate current mental and/or physical symptomology. Participants will be assigned to one of several conditions in which they will be instructed to respond in a specified fashion. Factor, reliability, and validity analyses will be conducted.
Sexual Trauma History as a Predictor of Current Distress

Jessica L. Meek, Undergraduate; April M. Robinson, M.A., Alumni; Shawn Beard, Undergraduate

Dr. Russell L. Kolts, Philip Watkins, Department of Psychology

The goal of the current study was to compare individuals with and without a history of sexual trauma in terms of their current level of depressive symptoms and stressor-related distress, while controlling for a history of non-sexual trauma and family violence. In this study, participants completed measures of traumatic and stressful experiences, depression, and PTSD symptoms related to the life event that caused them “the most distress.” These included events which met the Diagnostic and Statistical Manual for Mental Disorders-IV-TR (DSM; American Psychiatric Association, 2000) criteria as a traumatic event, and those which do not, such as divorce and job loss. Of the 92 participants included in the analyses, 39 reported experiencing a history of sexual abuse, assault, or coercion, while 53 did not. Statistical analysis revealed that individuals with a history of sexual trauma reported significantly higher levels of both current depression and PTSD symptoms in response to their most stressful event (across all event types) than did individuals who had not experienced sexual trauma.
POSTER PRESENTATIONS

2ND FLOOR,
CHICANO EDUCATION LOUNGE

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Trauma, Culture, and Beliefs: Exploring Cognitions in Hispanic Trauma Survivors

Omar Montejano, Undergraduate, McNair Scholar
Dr. Russell L. Kolts, Department of Psychology

Kolts, Robinson, and Tracy (2002) examined relationships between sociotropy and autonomy in relation to PTSD symptoms that follow a traumatic experience in a predominantly Caucasian population at a Northwest University. Kolts et al. (2002), found that trauma survivors with high levels of autonomy or sociotropy are more susceptible to PTSD and/or depressive symptoms. This replication study is proposed to examine specific findings that will positively contribute to the Hispanic culture including how culture prevents severity of PTSD symptoms. The current study examined PTSD and the cultural cognitive styles of sociotropy and autonomy. Preliminary research showed that Hispanics react significantly different than African-Americans and Caucasians; Hispanics exhibit higher levels of PTSD symptoms than their counterparts. Surprisingly, further exploration does not focus on the relationship between Hispanics and PTSD, despite studies indicating that Hispanics are affected more severely when compared to other ethnic groups. This study aims to find similar results reported in Kolts et al. (2002), that trauma survivors with high levels of autonomy or sociotropy will exhibit PTSD and depressive symptomatology.

The Preservation of the Nimi’i Puu Language and the Effectiveness of Its Implementation

Amelia Moses, Undergraduate, McNair Scholar
Dr. Jerry Galm, Department of Anthropology

The direction of this research project is to familiarize the general public with the importance of indigenous language conservation and preservation, with the illustration of the Nimi’i puu (Nez Perce) language being the vehicle for study. The audience will learn the historical importance of the Nimi’i puu which directed the present condition of their language programs, as well as the success and setbacks that those programs have experienced in the course of their establishment. The future of the Nimi’i puu language will be addressed as well as the responsibilities of the parties involved.

The Context of Women in Maya Art During the Classic Period

Kimberly Murphy, Undergraduate, McNair Scholar
Dr. Sarah Keller, Department of Anthropology

Throughout my research I have focused on the context of women in Maya art during the classic period. This includes how women were portrayed, what types of media they were presented in, and the different individuals, gods, classes and gender roles that these women represented. Through these illustrations, we are able to better understand how Mayan society perceived, envisioned, and represented the roles of women in their culture. By compiling and categorizing both the media and context that these women are represented in, I was able to gain a more insightful view of Mayan society. Previous works have focused mostly on male individuals and their role and impact in society; whereas the role of women has been ignored despite their valuable contributions to Mayan society.
Gender Differences in Alcohol Expectancies, Alcohol Use, and Alcohol-Related Aggression

Abigail B. Osborne, Graduate
Dr. Kayleen Islam-Zwart, Department of Psychology

The literature is conflicting about whether males or females engage in more alcohol-related aggression (Eagly & Steffen, 1986; Frodi, Jacaulay, & Thome, 1977). The nature of alcohol expectancies further complicate this picture. Some claim males expect to be aggressive while females expect to have positive effects (Brown et al, 1980). Others found both genders expected verbal aggression to increase (Rohsenow & Bachorowski, 1984). Alcohol consumption is also a factor in acting out aggressive behaviors (George & Dermen, 1988; Rohsenow & Bachorowski, 1984). This study examined gender differences regarding alcohol expectancies, alcohol use, and aggression. Male and female EWU students participated by completing a packet of questionnaires. It is anticipated that heavy drinking males and females will report high expectancies of alcohol-related aggression with males having more aggressive expectancies than females overall. While actual aggressive behaviors will be higher among males and females who have high alcohol expectancies, males will be more aggressive than females overall.

Responses to Community Trauma: Safety Perceptions and Subjective Distress

Sarah Reiber, Undergraduate; Jessica Weston, Graduate; Darlene Berner, Undergraduate
Dr. Russell L. Kolts, Kayleen Islam-Zwart, Department of Psychology

Since 9/11, there has been interest in the effects of widely publicized traumatic events on the surrounding communities, both in the culture at large and within the psychological literature. The current study focuses on a college community in which two highly-publicized traumatic events (bomb threat, multiple sexual assaults) had occurred. Community members completed measures of event-related distress, perceived safety in various contexts, and symptoms of depression and PTSD. Results revealed significant relationships between stress related to the traumatic events and perceptions of safety. Additionally, symptoms of PTSD and depression were related to both event-related distress and safety ratings. Finally, no differences were found between respondents ratings in the two-weeks following the specified events and at 6-month follow-up.
Posttraumatic Growth Following Stressors Meeting and Not Meeting DSM Trauma Criteria

Krista Robinson, Alumni; April M. Robinson, Alumni; Jessica Meek, Undergraduate
Dr. Philip Watkins, Dr. Russell L. Kolts, Department of Psychology

The current study examined reactions to two types of negative life experiences, including Posttraumatic growth (PTG) and PTSD symptomology. Self-report data regarding history of trauma and significant psychosocial stressors, as well as positive and negative post-event reactions, was collected from 104 participants who were classified into two groups. Group membership was based on whether or not the event that participants reported causing them the most subjective distress met criterion AI from the DSM-IV criteria for PTSD. No statistically significant differences were found between events meeting and not meeting the DSM criteria in terms of subject reports of either PTG or PTSD symptoms. Additionally, a significant correlation was found between PTG and PTSD symptoms across trauma types, indicating that the more distress produced by a stressor, the greater the likelihood that the individual would report experiencing growth following it. These findings indicate that significant life stressors such as divorce or job loss potentially have the ability to provoke both psychological distress and positive growth that is comparable to events that are more widely studied in the traumatic stress literature. More research is needed to compare these event types in terms of how long related reactions tend to endure.

First Language Acquisition and Brain Development: Examining Language Development and the Validity of the Critical Period Hypothesis

Roseann Sawyer, Undergraduate, McNair Scholar
Dr. Tracey McHenry, Department of English

One of the founding hypotheses in the field of linguistics is the Critical Period Hypothesis. This hypothesis presents the possibility that there is a limited period during which a person can fully learn a language and build a complete grammar. The actual validity of this hypothesis is yet to be determined; however, there is strong evidence to support the idea that language delays and deficiencies will occur if a first language is not acquired by the end of puberty. This project examines the validity of the Critical Period Hypothesis in circumstances where brain damage has occurred within the language faculty of the brain. Though many types of brain trauma exist, this paper focuses on instances of abuse and the amount of stimulation that occurs during the developmental stages, cases of Aphasia, and instances of Specific Language Impairment. The different instances in which the damaged parts of a grammar can be regained and times when abilities are lost permanently are also examined.
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