

**Fourth Annual Augusta State University
Student Research and Fine Arts Conference**

Celebrating Student Success

Wednesday, March 19, 2002
Science Building

Sponsored by the ASU Chapter of
The National Honor Society of Phi Kappa Phi

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Abstract Submission and Selection

The Celebrating Student Success conference is an opportunity for all students at Augusta State University, regardless of discipline, to showcase their scholarly and artistic endeavors. In a double-blind review process, participating students were competitively selected from previously submitted abstracts of their proposed conference projects.

The proposed project may have been presented elsewhere or expected to be presented elsewhere, but it must have been endorsed by a full-time Augusta State University faculty member. The competition was open to all undergraduate as well as graduate students. Students and faculty sponsors were not required to be members of Phi Kappa Phi.

The abstracts had to contain sufficient detail to permit reviewers to understand and evaluate the overall quality of the project.

Conference Planning Committee

Dr. Jurgen Brauer (Chair), Economics
Dr. Peggy Ruth Geren, Clinical and Professional Studies
Dr. James Grayson, Management
Dr. Pamela Hayward, Lang/Lit/Communications (LLC)
Dr. Donna Hobbs, Chemistry and Physics

Abstract Review Committee

Dr. Paul Harris (Chair), Political Science
Dr. Ray Chandrasekara, LLC
Dr. Kim Davies, Sociology
Dr. Pamela Hayward, LLC
Dr. Mary McCormack, LLC
Dr. Robert Reeves, Psychology
Dr. Deborah Richardson, Psychology
Dr. Rebecca Rogers, Psychology
Dr. Bruce Saul, Biology
Dr. Allen Scarboro, Sociology
Dr. Richard Topolski, Psychology
Dr. Cathy Tugmon, Biology
Dr. Wendy Turner, History
Dr. Ray Whiting, Political Science

Sponsors

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Dr. Edward Pettit and Dr. William Dodd, Associate Deans

College of Business Administration

Mr. J.K. Widener, Jr., Dean

College of Education

Dr. Ron Weber, Acting Dean

Department of Fine Arts

Dr. Christine Crookall, Assistant Professor

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Ms. Ginger Chew, Coordinator

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Ms. Kathy Schofe, Director
Mr. Stephen Brady, Information Specialist
Ms. Mary Jo Luta, Computer Graphics Artist

Public Relations Student Campaign Team

Under the direction of Dr. Debra van Tuyl:
Ms. Beth Carter, Ms. Rho Kuhar, Ms. Alice Norville, Ms. Tequila Spears, and Ms. Monica Vasquez

Program**12:30 pm – Registration; Atrium****1-1:30 pm – Music; Atrium**

Selections from *The Music Man*

Linda Banister and Carolyn Cope, *co-directors*
Patti Myers, *musical director*

Matt Schlieff, *technical director*
Ruthie Brennan, *pianist*

The Sadder but Wiser Girl

Harold Hill
Marcellus Washburn

Stephen Rushing
Sean Moton

Lida Rose & Will I Ever Tell You?

Harold Hill
Marian Paroo
Quartet

Stephen Rushing
Lisa Tharp
Jacob Johnson, Don Cleary, Paul Jones, and David Bryant

Gary, Indiana

Winthrop Paroo
Mrs. Paroo
Marion Paroo

Michael Fortino
Debby Moore
Lisa Tharp

Till There Was You

Marion Paroo
Harold Hill

Lisa Tharp
Stephen Rushing

1:40 - 2:40 pm – Panel Session I (two sessions)**Session 1 – The American Presidency; Room W1002**

Chair: Dr. Paul Harris, Political Science

- < John Clark, *Ike in Augusta: The Relationship between Dwight D. Eisenhower and Augusta National Golf Club*
Faculty Sponsor: Dr. Edward Cashin, Jr., History
- < Sandy Kanabrocki, *Political or Organizational? A Critique of the First Hoover Administration*
Faculty Sponsor: Dr. Paul Harris, Political Science
- < Phil O'Keefe, *Franklin D. Roosevelt: Shaking Up the Judiciary*
Faculty Sponsor: Dr. Paul Harris, Political Science
- < Laura Collins, *Jimmy Carter and the Iran Hostage Crisis*
Faculty Sponsor: Dr. Paul Harris, Political Science

Session 2 – Empirical Work in Social and Natural Sciences; Room W1008

Chair: Dr. Rebecca Rogers, Psychology

- < Wayne D. Beck and Travis Fraser, *The Effects of Cryptocaryon irritans on Trachinotus carolinus*
Faculty Sponsor: Dr. Bruce Saul, Biology
- < Virginia Loveless, *Tendency to Engage in Interracial Relationships Among White and Black Americans*
Faculty Sponsor: Dr. Kim Davies, Sociology

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- < Matt Gregoski, *Why Are They So Mean? Direct and Indirect Aggression*
Faculty Sponsor: Dr. Deborah Richardson
 - < Janet Huey, *Digging Up Healthcare Strategies at the Augusta Arsenal:1890-1920*
Faculty Sponsor: Dr. Christopher Murphy, Anthropology

2:50 - 3:50 pm – Panel Session II (two sessions)

Session 1 – Issues In Community Development; Room W1002

Chair: Dr. Gwen Wood, MPA Program Director

- < Uzoma Anadu, George Jalagonia, and Jonathan Marks, *Perception of the Community's Development Situation*
Faculty Sponsor: Dr. Sandra Reinke, Political Science
- < Jason Graves, *Political Efficacy and its Influence on Political Participation*
Faculty Sponsor: Dr. Sandra Reinke, Political Science
- < Ric Goolsby, *'Project Exile': A Promising New Gun Violence Initiative*
Faculty Sponsor: Dr. Kim Davies

Session 2 – Between the Lines: Critiques of Conrad, Varo, and Gray; Room W1008

Chair: Prof. Tim Sadenwasser, Languages, Literature, and Communications

- < Sharon Walls, *Conrad's Condemnation of Slavery in 'Heart of Darkness'*
Faculty Sponsor: Dr Peggy Yonce, Languages, Literature, and Communications
- < Maria Silane Silva, *The Work of Remedios Varo and the 'Crying of Lot 49'*
Faculty Sponsor: Dr. Mary McCormack, Languages, Literature, and Communications
- < Katie Mercer, *The Discredited View of Gender Roles in the Work of John Gray*
Faculty Sponsor: Dr. Pamela Hayward, Languages, Literature, and Communications

4-5 pm – Panel Session III (two sessions)

Session 1 – Religion: Post 9-11, Room W1002

Chair: Dr. Ray Whiting, Political Science

- < Stephanie Quattlebaum, *Reviving Civil Religion: Redefining the Sacred and Profane after 9-11*
Faculty Sponsor: Dr. Allen Scarboro, Sociology
- < Sammaad Shams, *What is Jihad?*
Faculty Sponsor: Dr. Ray Chandrasekara, Languages, Literature and Communications

Session 2 – Social Issues: Alcohol, Gambling, and Education;W1008

Chair: Dr. Peggy Ruth Geren, Clinical and Professional Studies

- < Jane Kelley, *Preventable Tragedies: Fetal Alcohol Syndrome and Fetal Alcohol Effects*
Faculty Sponsor: Dr. Charles Jackson
- < Carol DeLoach, *What Does Education Look Like?*
Faculty Sponsor: Dr. Allen Scarboro, Sociology
- < Mendy Cantey, *Wanna Bet?*
Faculty Sponsor: Dr. Sandra Reinke, Political Science

Atrium: Concurrent Poster Session I – 12:45-2:00 pm

- < Devin Smith and Tara Cooper, *Breaking the Barrier of Disabilities Through Storybooks*
Faculty Sponsor: Dr. Alice Pollingue, Special Education
- < TamBoura Jenkins, *Treating the Hypertensive Client and the Nurse's Responsibility*
Faculty Sponsor: Prof. Jean Balogh, Nursing
- < Chris Howard, *The Effects of Organic Contamination on the Anti-Microbial Efficacy of Lyrol, Amphyl, and Ethanol*
Faculty Sponsor: Dr. Cathy Tugmon, Biology
- < Tammy Lowery, *Models Predicting Use of Psychological Aggression in Intimate Relationships*
Faculty Sponsor: Dr. Sabina Widner, Psychology
- < Kim Christiansen, *Religious Belief: Commitment Levels and their Relationship to Aggression Levels*
Faculty Sponsor: Dr. Deborah Richardson, Psychology
- < Peter Warren, Vivian Price, and Crystal Hufstetler, *Stigmatized Ownership and Disgust in Rating Consumer Products*
Faculty Sponsor: Dr. Robert Reeves, Psychology
- < Uzoma Anadu, George Jalagonia, and Jonathan Marks, *Perception of the Community's Development Situation*
Faculty Sponsor: Dr. Sandra Reinke, Political Science

Atrium: Concurrent Poster Session II – 2:30-4:15 pm

- < Linda Baughn, *Pediatric Onset of Bipolar Disorder*
Faculty Sponsor: Prof. Jean Balogh, Nursing
- < Jana Styron, *Nursing Care for Patients with Eating Disorders*
Faculty Sponsor: Dr. Charlotte Price, Nursing
- < Katie West, *Antimicrobial Activity in the Composite and Mint Families*
Faculty Sponsor: Dr. Charlotte Christy, Biology
- < Ian Rivera, *P2 Receptor Regulation of $[Ca^{2+}]_i$ in Cultured Mouse Mesangial Cells*
Faculty Sponsor: Dr. Richard Griner, Biology
- < April Zahner and Dana Lonaker, *Disgust and Preference for Nontraditional Colored Food*
Faculty Sponsor: Dr. Robert Reeves
- < Vivian Price, Emily Bailey, Tiffany Jones, and Catherine Edmunds, *Obligatory Exercise and its Relationship to Obsessive Compulsive Symptomatology*
Faculty Sponsor: Dr. Rebecca Rogers, Psychology
- < Jesus Castro Sanchez, *Evaluation of Aggression Replacement Training*
Faculty Sponsor: Dr. Deborah Richardson, Psychology

Closing Music – 5:10 - 5:40 pm, Atrium

- < Pawel Kozak, *violin*

Reception 5:45 pm, outside north entrance

Abstracts**Ike in Augusta: The Relationship between Dwight D. Eisenhower and Augusta National Golf Club**

by John R. Clark,

Mentor: Dr. Edward J. Cashin, Jr., History

One President of the United States is inextricably linked to Augusta: Dwight D. Eisenhower. In a life characterized by constant travel and a sense of rootlessness, Eisenhower's personal journey took him from Abilene, Kansas to West Point; to countless military bases across the United States; to Washington, D.C. at the onset of World War II; then to England, North Africa, and France; back to Washington and then to Columbia University and again to Europe, before destiny beckoned and Eisenhower occupied the White House. Despite his many achievements at each of these locations, none represented a true home for Eisenhower. A chance vacation at Augusta National Golf Club at a critical moment in Ike's life gave the general and his wife Mamie the first sense of belonging they had experienced in their married life; in associating with Augusta National, the General of the Army provided a suitable heroic figure for the golf club's membership at a moment when their hero Bobby Jones was in physical decline; and the association of Eisenhower and Augusta National proved to be significant when political developments opened up Ike's road to the presidency.

Political or Organizational?

by Sandy Kanabrocki

Mentor: Dr. Paul A. Harris, Political Science

The Commission on Organization of the Executive Branch of the Government was established by President Harry S. Truman on July 7, 1947. Former President Herbert Hoover was named chairman of the newly established commission soon to be dubbed The Hoover Commission. Hoover quickly took the task of organizing the government's Executive Branch under his wing. He, along with his task forces, made many recommendations to aid in the efficiency and effectiveness of the United States Government.

This paper attempts to analyze some of the recommendations and views of the Hoover Commission and their effects, if any, on the Presidency. To effectively analyze any changes, helpful or otherwise, this author relied on previously written historical data found in scholarly journals, presidential memoirs, and biographies, in addition to information on various websites.

Franklin D. Roosevelt: Shaking Up the Judiciary

by Phil O'Keefe

Mentor: Dr. Paul A. Harris, Political Science

"I may give you an awful shock in about two weeks," Franklin D. Roosevelt had confided to a close adviser on January 15, 1936. The Supreme Court had successively rejected his New Deal reforms meant to provide economic and social relief. Roosevelt resolved that the solution to the depression lay in the addition of new, liberal justices who would approve his programs. The next month, the president alarmed the nation with a proposal to reorganize the judiciary. The highly controversial 'court packing' bill generated ripples of protest and debate. While critics accused Roosevelt of scheming to expand his personal power, many began to reexamine current conditions to determine what was needed to overcome the standstill of the recovery from the Great Depression. The deteriorating economic and social conditions and a series of unpopular Supreme Court decisions opened doors to criticism and analysis of the nine justices, and after the court packing bill, the pressure from the president, Congress, and the public reached its pinnacle. The proposal itself died out without much success, but its consequences were momentous. The threat of the bill, along with Roosevelt's awesome victory in 1936, drove the Supreme Court to abandon its mechanical interpretation of the Constitution and open its eyes to the obvious facts facing our nation. The bill played a key part in the judicial revolution process by acquiring the two swing votes that were the critical factors in the Court's decisions. Later its pressure pushed many justices to retirement, allowing Roosevelt to crowd the Supreme Court with his supporters, and truly cement his victory.

Jimmy Carter and the Iran Hostage Crisis

by Laura Collins

Mentor: Dr. Paul A. Harris, Political Science

On November 4, 1979, Iranian militant students stormed the United States Embassy in Tehran, Iran and took approximately seventy Americans hostage. With the approach of the 1980 Presidential election, Carter made the decision to attempt a rescue mission, which failed. The Iranian hostage crisis plagued the Carter administration and most likely caused him to lose re-election in 1980. The public became critical of Carter's negotiations and actions during the hostage crisis which reflected badly upon his foreign policy decisions and those of his advisors. This paper will attempt to examine President Carter's role in the negotiations, how the crisis affected his negotiations, how the crisis affected his foreign policy, and the role his advisors had in the crisis and the attempted rescue mission.

The Effects of *Cryptocaryon irritans* on *Trachinotus carolinus*

by Wayne D. Beck and Travis Fraser

Mentor: Dr. Bruce Saul, Biology

The Florida Pompano is considered to be difficult to keep in captivity. It is a very timid fish that is considered to be easily stressed. These traits, coupled with the fish's relative abundance, made the Florida Pompano more than suitable for this experiment. The experiment was designed to determine the effects of the marine parasite, *Cryptocaryon irritans* on the Florida Pompano, and freshwater dipping as a viable treatment. Infestations of *Cryptocaryon irritans*, commonly known as white spot disease, or saltwater Ich, have plagued marine aquarium hobbyists for years.

The parasite is obligate, meaning that it cannot survive in the absence of a host fish. When fish are stressed due to fluctuating temperatures or poor water quality, their immune system is weakened. The experiment required two tanks with infected fish in each. The control tank was not treated for the parasite. The fish in the experimental tank were given a freshwater bath in an attempt to kill the parasites. Water chemistry was monitored daily to ensure proper water quality in both tanks. The mortality rate in the control tank was considerably higher than in the experimental tank. There was no evidence to support that the fresh water bath was a viable treatment for the saltwater parasite.

Tendency to engage in Interracial Relationships among White and Black Americans

by Virginia Lynn Loveless

Mentor: Dr. Kimberly Ann Davies, Sociology

Interracial relationships are viewed as a positive step towards smoother race relations by some and as "sellout" behavior and denial of racial heritage by others. According to the U.S. Census reports, interracial marriages more than doubled between 1980 and 1995. African American/White American marriages increased an estimated 96% overall, with African American female marriages to White American males increasing 171%. In this study, I use data collected from 320 students at six public state universities who were in a criminal justice class or a sociology class where the surveys were distributed. Based on my review of the literature, I hypothesize that African Americans are more likely to engage/consider engaging in interracial relationships than White Americans. I use a chi-square test to determine if the relationship between one's race and his/her willingness to engage/consider engaging in an interracial relationship are statistically significant at the .05 level. My results suggest that African Americans and White Americans are equally accepting of interracial dating. Finally, I conclude with a discussion of these unexpected results.

Why are they so mean? Indirect and Direct Aggression

by Mat Gregoski

Mentor: Dr. Deborah S. Richardson, Psychology

Problem: The purpose of this study was to examine the influence of gender differences and self/other effects on types of aggression in same-sex relationships. Based on previous research (Richardson, 2002), we expected type and strength of aggression to vary as a function of gender and perception (self aggression vs. perceived other aggression).

Specifically, we predicted the following:

H1: Males would report more direct aggression than female. Females would report more indirect aggression than direct aggression.

H2: Both genders would report more aggression for others than self; reports would be consistent to previous hypotheses H1 with the exception of inflation.

Method: One hundred and forty-five students (50 males, 95 females) in undergraduate classes completed our study. To account for our self/other variable subjects were further randomly selected to groups of self (26 males, 49 females) and other (24 males, 46 females). Participants responded to a background questionnaire that assessed general demographics, and the Richardson Conflict Response Questionnaire (RCRQ). The only variations between the packets were to account for gender and self/other manipulation. Data were collected and all participants were debriefed.

Results: A 2 (self/other) x 2 (gender) x 2 (aggression type) analysis of variance, with repeated measures on the last factor, revealed two significant interactions: type of aggression by self/other manipulation $F(1, 141) = 4.94, p < .05$, aggression by gender $F(1, 141) = 30.65, p < .01$. The three-way interaction among aggression, gender, and self/other manipulation were not significant.

Interpretation: Supporting our first hypothesis, findings revealed a significant relationship between type of aggression and gender. As revealed in Table 1, males reported more direct aggression than females, and females reported more indirect aggression than direct aggression. Mean results from Table 2 support our idea that both males and females report more aggression for others than themselves. However Tables 3a and 3b demonstrate the trend for aggression scores to be consistent between genders yet inflated in the variable of self/other manipulation. The present study focused on aggression in same-sex interactions. Further research should examine the effects of cross-sex relationships, in view of recent research indicating that type of aggression varies as a function of the nature of the relationship between the conflicting parties. The present results also provide further evidence of the validity and applicability of the Richardson Conflict Response Questionnaire.

Digging Up Healthcare Strategies at the Augusta Arsenal, 1890-1920

by Janet L. J. Huey

Mentor: Dr. Christopher P.H. Murphy, Anthropology

The main campus of Augusta State University is located on the Augusta Arsenal archaeological site (9Ri1045). The property, purchased in 1826, served as an active military arsenal until 1955. An impending History Walk Project and pipe-laying construction prompted archaeological testing during summer 2000. The investigation revealed secondary refuse disposal pits dated circa 1890 through 1920. The assemblage of artifacts unearthed includes 473 bottles partially comprised of hospital, pharmaceutical, proprietary, and unidentified medicines. The recovered healthcare-related bottles provide evidence that occupants of the Augusta Arsenal implemented diverse health care strategies. During this time period, medical technology was limited and physicians lacked the knowledge and tools to address many health threats of the day. The presence of proprietary medicine bottles, identified by embossing, indicates that consumers sought methods alternative to conventional medical care available on post. Research has revealed ingredients and indicated usages for the majority of the proprietary products. Many of these products may have provided legitimate and effective treatments. The efficacy of ingredients comprising the compounds of these healthcare products is included in this discussion.

Political Efficacy and its Influences on Political Participation

by John Graves

Mentor: Dr. Sandra J. Reinke, Political Science

Political Efficacy and Political Participation have been intricately studied for decades. This study examines political efficacy and its various entities to find correlations with political activity and participation. Two arenas of political participation are examined to see if efficacy has a stronger relationship with local or national politics. This study uses primary research gathered from students at Augusta State University. Internal efficacy shows strong relationships with political activity, and voting in national elections tends to be the activity of choice among the highly efficacious.

Perception of the Community's Development Situation

by Uzoma Anadu, George Jalagonia, and Jonathan Marks

Mentor: Dr. Sandra Reinke, Political Science

The Richmond County Regional Development Center conducted a leadership survey that asked local business and political leaders their feelings on important aspects of our community. This survey required the participants to reply on many different areas such as quality of life, labor, local leadership, and education. The significance of this survey is that it reflects the perception of our community, and is crucial because prospective businesses look at these factors when choosing a new location.

A 1994 study by John Mackay stated that a business's perception of the community is one of the main factors influencing the final location decision. This perception is formed based on the area's utilities, private development organizations, banks, and quality-of-life benefits such as health clubs, country clubs, parks, and so on. Essentially, these particular items are some of the items covered in this survey.

This survey was designed as an attitude test, which simply asks participants to agree, disagree, or have no opinion. In the case of this survey the items had to be classified as strength, normal, weakness, or no opinion. The authors analyzed this data and found that the community leaders perceived major weaknesses in the areas of education, race relations, local government, housing quality and communication between local agencies. The only strength that the community leaders perceived was in the area of utilities where they felt that the utilities provided for the community were normal. The authors interpreted these results in many ways.

The results of this survey portray several areas that need much improvement. In particular the quality-of-life section of items and the market situation are two areas with predominant levels of weakness. These two sections also happen to be crucial areas in which community development derives. For example, the appearance of downtown is perceived as a major weakness, which means that a prospective business might not choose Augusta as a place to open business because the appearance of downtown could negatively affect operations.

Also, items such as relationship between races, and quality of elementary education all could prove destructive to groups wanting to move to Augusta. Since the respondents in this survey are local business and political leaders the results of this survey are legitimate and crucial. This survey proves the need for community development in Richmond County, and it encourages more research in this topic. The areas that are perceived as weaknesses can be evaluated in-depth so changes can be made and hopefully make Augusta a more marketable and appealing city for future outside investments.

"Project Exile" – A Promising New Gun Violence Initiative

by Ric Goolsby

Mentor: Dr. Kimberly Ann Davies, Sociology and Criminal Justice

In recent years, our government has made tremendous efforts to combat gun violence. Some programs, like the Brady Bill, have proven successful. However, it remains to be seen what new steps our government should take in the ongoing battle against gun violence. One promising new program, *Project Exile*, first implemented in Richmond, Virginia, takes a cooperative approach toward solving this terrible problem. Project Exile focuses state and federal resources to enforce existing federal laws that prohibit convicted felons from possessing firearms. Under this initiative, more firearm cases are prosecuted in federal court where sentences are tougher. Project Exile has already produced dramatic preliminary results in Richmond, but what will be the long-term results of the program and will it work elsewhere? Because this program is in its initial stages of implementation, this study is perhaps the first academic evaluation of the innovative program. This study focuses on the homicide rates of Richmond, Virginia and over a dozen of other jurisdictions that have implemented similar programs since the inception of Richmond's Project Exile.

Conrad's Condemnation of Slavery in *Heart of Darkness*

by Sharron C. Walls

Mentor: Dr. Margaret Yonce, Languages, Literature, and Communications

My paper is an examination of Joseph Conrad's *Heart of Darkness* as a document in which the author, with deliberate intent, couches within his fictional story the truth of atrocities occurring in the Belgian Congo under the mantle of colonialism. Conrad's personal experiences in the Congo, the international anti-slavery movement of the time, and the legacy of his family's activism against their homeland's oppressors are examined and shown to have influenced Conrad's motives in the writing of this work, which helped to shape public opinion and to pressure the governmental bodies involved.

The Work of Remedios Varo and *The Crying of Lot 49*

by Maria Silane Silva

Mentor: Dr. Mary C. McCormack, Languages, Literature, and Communications

At the end of chapter one of his novel *The Crying of Lot 49*, Thomas Pynchon describes an epiphany that the protagonist Oedipa Maas has after contemplating the central panel of a triptych, named *Bordando el Manto Terrestre* (Embroidering the Earth's Mantle), by the Spanish painter Remedios Varo. Since this painting really exists, chances are that Pynchon, just like Oedipa Maas, could have attended any of Varo's exhibitions in Mexico City and could have become impressed by the surrealistic atmosphere of Varo's paintings. Even though Oedipa seems to be moved only by the central panel, two other panels compose the painting, *Hacia a la Torre* (Towards the Tower) and *La Huida* (The Escape). These three paintings recall the cyclic structure of *The Crying of Lot 49* and epitomize Oedipa's condition of a typical suburban housewife whose life is marked by consumerism and constant visits to the psychoanalyst. Although Pynchon does not mention them, other Varo's paintings, such as *Mujer Saliendo del Psicoanalista* (Woman Leaving the Psychoanalyst) and *Encuentro* (Meeting) also reflect Oedipa's condition at different moments of the plot as well; therefore, those paintings also may have inspired Pynchon during the craft of the novel. As an extension of this parallel between the work of Remedios Varo and the plot of *The Crying of Lot 49*, the author will demonstrate that, as a work of art, *The Crying of Lot 49* can affect the reader as Varo's paintings did Oedipa (and perhaps Pynchon). In other words, this novel can provide its readers with the understanding that they are always embroidering their own reality and trying to fill the emptiness around them with meaning and order. This process is very painful, but it is the only path to personal growth and deliverance from the tower of narcissism.

The Discredited View of Gender Roles in the Work of Dr. John Gray

by Katie Mercer

Mentor: Dr. Pamela Hayward, Language, Literature, and Communications

John Gray, Ph.D. has written and published many books about what intimate heterosexual relationships need in order to survive and flourish. In this paper, Gray's book "Men, Women, and Relationships" specifically is scrutinized and analyzed. When compared to communication and sociological texts, Gray's concepts are discredited. It was found that from a communication standpoint, Gray's work is not applicable to today's "modern" couples (he supports the homemaker/breadwinner model that was popular in American society in generations previous) and portrays men as simple beings that need the aid of women in order to "open up" and articulate their feelings successfully. Sociologically, Gray medicalizes (the process of transforming non-medical problems into medical issues) women and their actions suggesting that because they are ill in some way they should seek professional help to overcome what it is that is plaguing them and ultimately causing problems for their relationships. Most of John Gray's books (those dealing with heterosexual relationships) consist of basically the same information just repackaged, renamed, and resold.

Reviving Civil Religion: Redefining the Sacred and Profane After 9-11

by Stephanie Quattlebaum

Mentor: Dr. Allen Scarboro, Sociology

For Americans the beginning of the twenty-first century is marked by terrorist attacks on September 11, 2001. Americans were stunned at the reality and atrocity of human massacre resulting from the suicide bombings of the World Trade Center and the Pentagon. The damage done cannot be compared to any peacetime catastrophes in US history. There were reported to be over 6000 dead or missing in the World Trade Center bombings alone. These attacks created many questions and a sense of national crisis among Americans.

How does America respond to such a crisis? This paper argues that Americans responded to the September 11th attacks by reviving civil religion. Embracing civil religion was a form of embracing the sacred. The sacred and profane are continually redefined by those who control the prevailing ideology. In America, 2003, the sacred and profane are defined by George Bush and the Republican Party, as well as other national and local leaders. In rhetoric and in practice, the president claims that America is chosen by God and therefore, is a sacred place with sacred purposes. Therefore, loving all that is American can be a holy experience.

Civil religion serves three main functions: it unites Americans, legitimates the ruling regime, and creates a platform for action. Americans who participate in this revival encounter the sacred outside of traditional religious venues. These individuals also are likely to support the president areas of foreign policy and war as a venue for supporting the sacred. This paper explores how changes in defining the sacred and profane in terms of American ideals after the events of September 11, 2001, impacts on the way Americans relate to each other and to the world.

What is Jihad?

By Sammaad R. Shams

Mentor: Dr. Ray Chandrasekara, Languages, Literature, and Communications

This paper will seek to address the misconceptions about the term Jihad. I will attempt to explain and explicate the correct meaning and practice of the Islamic concept of Jihad. In the west, the word jihad is translated as holy war. However, jihad's literal meaning is to struggle or strive or work for something with determination. Providing missionary services in an isolated location, going to another place to study, helping the needy and poor, and so on are the types of struggle that is embodied in the term jihad. Jihad has several categories. However, all the types can be categorized into three: personal jihad, tongue jihad, and Hand or action jihad.

Jihad is based on ideals of defense from invading or aggressive forces and can only be instigated when certain conditions are met. Action Jihad is simply a concept that recognizes the right to contest opposition and to repel incursion. Also, I will attempt to show that suicide bombing is not jihad because the Koran states explicitly that only God has the right to take a life and the killing of an innocent person is construed as the killing of all of humanity. Similarly, the decree by Allah, "Keep your (Muslim) horses ready," means that one should be ready to protect oneself from the aggressor. To strike first is an act of aggression; forgiveness and mercy, especially for one's enemy, is paramount in jihad.

Jihad is mostly associated with Muslims. Yet, who is a Muslim? The paper will try to elucidate that Muslims are not only Muhammad's progeny, but also of Abraham and that all of his descendants – Jews and Christian – are also, in a manner, Muslims. Finally, the paper will reveal that the true meaning of jihad has been hijacked by the fundamentalist, radicals, and fanatics of the Muslim world. These radicals and fundamentalist have their own interpretation of the Koran and have distorted the actual meaning of jihad.

What Does Education Look Like?

By Carol DeLoach

Mentor: Dr. Allen Scarboro, Sociology

After three semesters teaching in an urban elementary school and a semester of Western Social Theory at Augusta State University, I began to ask myself, "What does education look like?" It looks like International Paper – like a factory tooled

to produce “graduates” who will insure increased productivity and profit for our capitalistic society. This insight leads to three new questions. “How should education look? Why is it not like that? What are my options as a teacher?”

Researching the etymology of socialization, education, and instruction, reading *Pedagogy of the Oppressed*, and exploring articles about Western education lead me to conclude that education needs a flexible, fluid setting prepared by a sensitive facilitator in order to encourage the dialogue initiated and guided by a thoughtful teacher, all paving the way for learners to have access to themselves. Western educational thought – so different from what I expect it should be – began in 399BC when the rulers in the Greek city-state of Athens killed Socrates, fearing his theory of the fallibility of knowledge and his conception that education should produce critics. Plato, realizing the vulnerability of intellectuals, proposed that they should control political life and began to educate the future guardians of the state.

For him, the education system creates and sustains society and he abandoned the Socratic wisdom of fallible knowledge and critical learners. The age of authoritarian education as a tool for those in power to maintain that power had begun. One can see the goal of education to be efficient production; the necessary resource, human labor; the primary activity, skills training; and the ultimate motive, productivity. In *Pedagogy of the Oppressed*, Paulo Freire describes oppression as “Any situation in which ‘A’ objectively exploits ‘B’ or hinders his pursuit of self-affirmation as a responsible person...” The Platonic system of education that became a tool for Capitalism to reproduce and improve itself is oppressive – it exploits and it hinders the pursuit of self-affirmation. My goal as an educator was to affirm students while the expectation was that I should oppress them. Hence, anomie – an anxious awareness of there being no relevance between a goal and the achievement of the goal – has been my experience. I, therefore, can explore without hesitation my options as a teacher within the framework of the adaptations to anomie described by Robert Merton: conformity, innovation, ritualism, retreatism, or rebellion. Rebellion seems to be my only option, but do I have the courage to rebel? Paulo Freire and Saint Paul the Apostle, two educators who succeeded in spite of anomie, imply that there is more than courage needed – I will need love, humility, faith, hope, and critical thinking. These two passionate educators were embroiled in crises in their cultures because they taught subversive messages but they persevered and used their pedagogy to change the Western world. Freire calls educators “dialoguers.” I would call them artists, from **ar**, to fit together, and I would call education a studio, from **steu** meaning to push, stick, knock, or beat. Echo Socrates, who suggested that we uncover and create. Education today in the West looks like a factory. It should look like a studio. Western authoritative thought has robbed education of its dialogue, its discernment, and its creativity. With love, humility, faith, hope, critical thinking, introspection, and perseverance, perhaps I could build a studio.

Preventable Tragedies: Fetal Alcohol Syndrome Fetal Alcohol Effects

by Jane Kelley

Mentor: Dr. Charles Jackson, Education

Alcohol consumption by pregnant women causes abnormal fetal development, termed Fetal Alcohol Syndrome (FAS) or Fetal Alcohol Effects (FAE). Characteristics of FAS include abnormal facial features, mental retardation, and learning disabilities. FAE is similar to FAS, but children with FAE do not have the characteristic facial features seen in FAS. This makes FAE more difficult to diagnose. FAS/FAE affects more than 8,000 children annually. The level of incidence varies between racial and ethnic groups, with a positive correlation to the drinking patterns of these groups. FAS/FAE is preventable but incurable. Educators need to be aware of the characteristics of children with FAS/FAE and develop strategies to better provide for their educational needs.

Wanna Bet?

by Mendy E. Cantey

Mentor: Dr. Saundra Reinke, Political Science

This paper reviews Peter Moran’s view on the new phenomenon of legalized gambling and critiques his reasons for why states adopt lotteries. Moran says that the adoption of these games happens because 1) the American public has an appetite for gambling, 2) the money made from ticket sales will reduce the size of the state budget, 3) the money is going to a worthy cause such as education, 4) the funds are overseen by a regulatory agency and should be taxed, and 5) the benefits are purely economical. This paper also takes a look at Colorado, a state that has implemented the lottery and

is using the earmarked funds to support certain programs throughout the state. The research found in this paper can be helpful in trying to persuade critics of the lottery to see the positive effects of these games.

Breaking the Barrier of Disabilities through Storybooks

by Devin H. Smith and Tara L. Cooper

Mentors: Dr. Alice Pollingue and Dr. Paulette Harris, Special Education

Thanks to the enforcing of new public laws, many special needs students are no longer being tucked away in institutions, many are being placed in general education classrooms all over the country in a new wave called inclusion. Even though special needs students are being placed in regular education classrooms, the general education population still holds many stereotypes toward these individuals. In hopes of changing the perceptions of some students at a local elementary school, 13 Undergraduate Interrelated Special Education students volunteered to read stories to general education classes which consisted of students from kindergarten through fifth grade at Lake Forest Hills Elementary School for seven weeks, once a week, to help students understand what different types of disabilities are and how people with these disabilities cope with everyday life.

Activities were conducted after each story to reinforce the concept presented. On the first visit, a Pre-test was conducted that consisted of several questions that were asked to each class to determine what kind of perceptions the general education population had about students with special needs, either being positive or negative. The test found that 35% had positive perceptions while 65% had negative.

After seven weeks of reading a different story each week and conducting an activity after each story a Post-test was conducted to re-evaluate the perceptions of the general education students. The test found that the perceptions of the general education population had changed drastically to 75% of the population having positive perceptions and only 25% having negative perceptions.

Treating the Hypertensive Client and the Nurse's Responsibility

by TamBoura Jenkins

Mentors: Dr. Charlotte Price, Jean Balogh, Susan Rucker, Melissa Williams, and Sue Buzhardt, Nursing

Hypertension or high blood pressure is a medical condition in which constricted arterial blood vessels increase the resistance to blood flow causing the blood to exert excessive pressure against vessel walls. It is a common, often asymptomatic disorder characterized by a blood pressure measurement consistently above 140/90. The causes of hypertension are still not known. Diet and stress are suspected as prime contributors to hypertension, but many medical and nursing personnel are not certain of all the mechanisms involved. High blood pressure is classified as primary or secondary.

Primary, or essential hypertension, affects 90-95% of all people living with hypertension. Factors that contribute to primary hypertension are excessive weight, lack of physical activity, excessive salt intake, diets high in fat and cholesterol, alcohol consumption, smoking, and stress. Other risk factors include genetics, age, gender, and ethnic group. The rate of hypertension among African-Americans tends to be higher than other races although less common, secondary hypertension usually tends to be more life threatening and very difficult to treat. It may be caused by a problem or disorder, such as, high dose estrogen use, kidney disease, renal artery stenosis, primary hyperthyroidism, Cushing's syndrome, pregnancy, or neurological disorders that raise intracranial pressure.

The nursing assessment may include several blood pressure readings at different times and in different positions. With aid from the nurse, the medical and family history helps the doctor determine if the client has any conditions or disorders that might contribute to or cause hypertension. Decisions on starting treatment should take into account not just the level of blood pressure but also the presence of other clinical features, including risk factors, and evidence of target organ damage.

The nurse must take an active role in the education of high-risk patients to prevent the complications and rigorous treatment of hypertension and the associated problems. The key to treating hypertension is avoiding all of the risk factors. Nurses can be instrumental in helping clients change bad habits by keeping in mind that change occurs in steps, or stages. In most individuals, changes in behavior occur with time, with the client moving from being uninterested,

unaware or unwilling to make a change, to considering a change, to deciding and preparing to make a change. In conclusion hypertension is a disease that can affect any and all Americans.

As stated earlier, hypertension is known as the silent killer because there may be no signs and symptoms. It is imperative that the clinical nurse inform every client with hypertension that the key to hypertension management is adherence to a strict dietary regimen, exercise program along with medication therapy. Hypertension is a long-term disorder that cannot be cured and the goals should be evaluated after several months on an ongoing basis.

The Effects of Organic Contamination on the Anti-microbial Efficacy of Lysol, Amphyl, and Ethanol

by Chris Howard

Mentor: Dr. Cathy Tugmon, Biology

In a laboratory that deals with bacteria and other microorganisms, the proper disposal of these potential pathogens is a primary concern. The most frequently employed method for control of these microbes is the introduction of a chemical agent that has the ability to either destroy them or reduce their numbers to a safe level. This often entails the dumping of contaminated media and other solutions into a larger container of disinfectant. This container is known as a bacterial morgue and in order to guarantee the safety of those working in the lab, it is very important to ensure that the chemicals used are accomplishing their intended function. The purpose of this study is to determine the conditions under which the disinfectants Osyl, Lysol, and Ethanol remain effective for use in a bacterial morgue. The analysis was focused primarily on the presence of organic contaminants, the most common being bacterial growth media, although inorganic contamination was present in non-controlled student morgues.

The bacteria that were used in the controlled portion of this experiment included *Staphylococcus epidermidis*, *Escherichia coli* and *Serratia marcescens*. Standard curves were performed for each of these bacteria and used to create a stock solution containing 10^6 bacteria/ml. A controlled amount of this stock was then added along with basic TSB media to create dilutions of each disinfectant ranging from 50-90%. A sample was removed and plated every 24hrs for 5 days.

In a second experiment, 90% dilutions of disinfectant were prepared. Every 24hrs a sample was taken/plated and additional stock was added, reducing the concentration of disinfectant to 80%. This procedure was continued until the concentration reached 50% or the plate growth was too numerous to count.

In a third and final experiment, bacterial morgues were created using the recommended concentrations of each disinfectant. Student media was then collected, measured, and distributed in equal portions to each morgue. After 24 hrs, a sample of each morgue was taken/plated and new student media was quantified and added.

This continued until plate growth was too numerous to count. Preliminary analysis indicates that Amphyl and Ethanol are comparable in their anti-microbial ability while Lysol is considerably less effective. All of the disinfectants, however, have proven ineffective in actual student bacterial morgues in which inorganic contamination was present.

Models Predicting Use of Psychological Aggression in Intimate Relationships

by Tammy D. Lowery

Mentor: Dr. Sabina Widner, Psychology

Problem: The purpose of the present study was to examine several individual variables to determine the best predictive model of the use of psychological aggression in dating and married couples. It is predicted that low levels of trust and self-esteem and high levels of romantic jealousy, romantic love, and risk in intimacy will be predictive of psychological aggression. Additionally, it is predicted that married couples will report using more psychological aggression than dating couples. Finally, inconsistent gender differences for the use of psychological aggression have been found in the past (Hamby & Sugarman, 1999; Lowery & Hammock, 2000). However, because this is an expansion of previous research that found little gender differences (Lowery & Hammock), little or no gender differences are expected in the current study.

Method: One hundred and thirty two undergraduates participated in the current study. Participants completed a modified version of Shepard and Campbell's (1992) Abusive Behavior Inventory, Pilkington and Richardson's (1988) Risk in Intimacy Scale, Rempel, Holmes, and Zanna's (1985) Trust Scale for Close Relationships, Mathes and Severa's (1981) Interpersonal Jealousy scale, Rosenburg's (1965) Self-esteem scale, and Ruben's Love Scale from his Love and Liking

Scale. These scales were counterbalanced to control for order effects. Participants were asked to respond to questions based on their current or most current relationship.

Results: No significant differences were found for male and female use of psychological aggression. An independent samples t-test revealed significant differences for married and dating couples' use of psychological aggression, $t(130) = -2.017, p < .046$. Married couples reported using more psychological aggression ($M = 36.44$) than dating couples ($M = 32.75$). Separate regression analyses were calculated for married and dating couples. Significant predictors of the use of aggression by married and dating couples will be reported.

Interpretation: Results suggest that married couples use more psychological aggression than dating couples in this sample. The hypothesis addressing direction of the predictor variables was partially supported. High levels of jealousy was a significant predictor for married and dating couples, while low levels of trust was a significant predictive of use of psychological aggression in dating relationships. However, risk in intimacy, romantic love, and romantic jealousy were not significant predictors of aggression for either type of relationship. In conclusion, the results of this study are important in that they provide a preliminary profile of who uses psychological aggression in intimate relationships. Implications for future research and prevention will be discussed.

Religious Belief/Commitment Levels and their Relationship to Aggression Levels

by Kim S. Christiansen

Mentor: Dr. Deborah Richardson, Psychology

The bombing of the World Trade Center on September 11, 2001 and its connection to religion forced many of us to begin questioning various aspects of religiosity and its bearing on how individuals relate to one another. Allport (1954) suggested that "the role of religion is paradoxical" (p. 444), and in turn research examining the different facets of religion may be quite contradictory and complex. The scope of this research is not to unravel the complexities of religiosity but to explore the possibility that particular ways of holding and expressing religious beliefs may be connected with aggression. Leiber, Woodrick and Rhoubush (1995; as cited in Leiber, & Woodrick, 1997) reported that particular religious beliefs were positively related to racial and gender stereotyping and to punitiveness. Ellison (as cited in Cota-McKinley, Woody, & Bell, 2001), found "that the hierarchical images of God as a master and judge were associated with increased acceptance of defensive violence" (p.345). This study will focus on Christian fundamentalism and its relationship to hostility. According to Ammerman (1991), fundamentalists hold attitudes (i.e. isolating themselves from and distrusting those holding different religious beliefs, belief in the inerrancy of the Bible, fear that secularists are trying to wipe out religion) that may relate to hostility in that hostile persons tend to view others as unable to be trusted, immoral, and in need of punishment for committing sin (Cook & Medley, 1954).

In addition, religious commitment may bolster an inclination toward hostility in that high levels of commitment tend to restrict access to others through differences in sexual behavior, social relationships, entertainment and particular ways of dressing (Olson & Perl, 2001). Data from 148 Christian respondents (70% female) are included in the present study. The participants completed the Religious Fundamentalism Scale (Altmeyer & Hunsberger, 1992), the Religious Commitment Inventory (McCullough, Worthington, Maxey & Rachal, 1997), the Cook-Medley Hostility Scale (Ho; Cook & Medley, 1954), and the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992). Analysis revealed a significant positive correlation between fundamentalism and commitment, $r(148) = .65$, indicating that the two variables were not independent of one another. Contrary to the hypothesis, the analysis also revealed that fundamentalism and commitment were negatively and significantly correlated with most measures of aggression with the exception of direct aggression. For example, both religious variables were significantly associated with total scores on the Buss-Perry AQ (r 's (148) \geq .19). The strongest correlations were those of verbal aggression with fundamentalism ($r(148) = -.27$) and religious commitment ($r(148) = -.25$), indicating that more religious persons reported less verbal aggression. In sum, on all the measures of aggression and hostility, more fundamentalist individuals report lower levels of aggression. Thus, the mystery continues. Future research might be aimed at discovering the extent to which fundamentalist beliefs serve as a true basis for aggressive action. That is, it might be the case that the fundamentalist beliefs are not directly linked to hostility but that they provide a justification for hostile feelings and aggressive behavior.

Stigmatized Ownership and Disgust in Rating Consumer Products

by Peter R. Warren, Vivian U. Price, and Crystal D. Hufstetler

Mentor: Dr. Robert A. Reeves, Psychology

Rozin and his colleagues (e.g., Rozin & Markwith, 1992; Rozin, Markwith, & McCauley, 1994) have conducted studies on the psychology of disgust, an emotion which leads to fear and aversion. This research has examined what are called “laws of sympathetic magic” (Frazer, 1959; Tylor, 1974), which refer to primitive beliefs found in traditional cultures. One such law is the “law of contagion”, in which two objects are thought to transmit properties or an essence to each other when they touch, especially if the objects are animate. Although such irrational thinking is most often attributed to primitive cultures, Rozin et al. have found that it is common in contemporary culture. Rozin et al. (1992; 1994) have used disgust and the law of contagion to help explain aversive reactions to stigmatized persons, such as those infected with AIDS, and objects with which these persons may have had contact.

In these studies, participants rated objects such as sweaters, automobiles, and hotel beds that were described as having been owned and used (and then cleaned) or owned and never used by either a man with AIDS or a healthy man.

Results of both studies showed that participants were more averse to objects that had been used by someone with AIDS, as opposed to the healthy owner. The results also showed, however, that use of an object even by a healthy man created some aversion. The present study replicated these studies. Fifty-seven students were recruited for a study of “evaluations of consumer products” and asked to rate pictures of four products – a baseball glove, watch, recliner, and unisex sweater- in a counterbalanced order. To disguise the purpose of the study, each participant received the same innocuous information (e.g., price, previous owner was a student) about the glove, watch, and recliner.

For the sweater, however, each participant was randomly assigned to one of three previous owner groups: no previous owner, healthy man, or AIDS patient. The sweater was rated on 100-point scales assessing how participants would feel about owning and wearing the sweater. A 9-point scale assessed appeal of the sweater. Higher scores on each scale reflected more favorable evaluations. Results showed the same pattern of significant differences ($p < .01$ for all comparisons) among ownership condition for each dependent measure.

For each measure, the sweater in the no owner condition was rated significantly more favorable than the other two conditions and the sweater owned by the healthy man was not rated significantly different from that owned by the AIDS patient. Respective group means for each dependent measure for the no owner, healthy, and AIDS conditions are as follows: own (83.42, 55.53, 41.58), wear (84.74, 47.89, 44.95), and appeal (7.37, 4.58, 4.74). The results have implications for interaction with persons with AIDS and with healthy persons.

Pediatric Onset of Bipolar Disorder

by Linda Baughn

Mentor: Prof. Jean Balogh, Nursing

As recent as the early 1990's, some healthcare providers doubted whether or not bipolar disorder existed in children due to the differences in presentation between children and adults. Because of this belief, many children have been misdiagnosed. It has been estimated that 1/3 of all children in this country who have been diagnosed with Attention Deficit Hyperactivity Disorder and 1/3 of the 3.4 million children who were diagnosed with depression, are actually suffering from early symptoms of bipolar disorder.

Although it is now known that behaviors of bipolar disorder can emerge as early as infancy, many bipolar children also meet the criteria for ADHD and the bipolar illness is often overlooked. Proper diagnosis and treatment is essential. If left untreated, this disorder can be lethal. Family and patient history is a vital part of the nursing assessment.

The entire future of the child, as well as the family, rests on proper diagnosis and treatment. It is essential for nurses and other healthcare providers to be aware of the signs and symptoms of bipolar disorder in children and the similarities to and differences from other mood disorders. They should also be aware of the pros and cons of the different treatment regimens and be able and willing to be a strong advocate for the child.

The nurse must thoroughly teach the parents about this disorder and its treatments so that they can make informed decisions regarding the course of treatment for their child. The child should be under the weekly care of a child psychiatrist until stable, and then continue treatment every six to twelve months thereafter.

Family therapy is equally important since each member can be affected. In addition to the psychological therapy, a pharmacological regime is also essential for proper treatment.

Nursing Care for Patients with Eating Disorders

by Jana Styron

Mentor: Dr. Charlotte Price, Nursing

Eating disorders are on the rise in America; therefore, nurses need to be aware of the signs and symptoms, the possible complications, the treatments available, and how to care for these patients so that they can provide adequate care and support. The two main eating disorders discussed in this paper are Anorexia Nervosa and Bulimia Nervosa. These are classified as psychiatric illnesses, but they lead to much more serious physiological conditions and can potentially affect every body system, even leading to death. Anorexia is defined as “a 15% reduction in weight below normal range, coupled with a lack of menses for three months” (James, 2001, p.37). Bulimia Nervosa “is defined as two or more episodes of binge eating every week for three weeks, followed by vomiting or purging through the use of laxatives or diuretics” (James, 2001, p.37). A patient with an eating disorder typically will not seek help specifically for the eating disorder, because he or she is usually in denial. The disorder may be discovered through a routine physical examination or through a visit for another health problem; therefore, a thorough nursing assessment is important in recognizing or confirming a disorder. If a nurse suspects that a patient has an eating disorder, he or she must explore her suspicion, because it is life threatening. Some symptoms to look for include skin that is dry, rough, and cracked, thin, fragile nails, thinning hair, muscle wasting (including the heart), anemia, hypotension, growth retardation, and lanugo. The vomiting associated with Bulimia can cause dental erosion, esophageal erosion, and parotid enlargement. Dieting typically precedes an eating disorder, and the patient will have a negative view of his or her body and weight. The patient will also prefer eating alone, will get weak with activity such as climbing stairs, and may have dizzy spells or repeated fainting. The main nursing diagnosis for these disorders is Imbalanced Nutrition: less than body requirements. Some expected outcomes are that the patient stops losing weight, begins gaining weight, and is able to eat three sensible meals a day without the use of vomiting, laxatives, diet pills, or excessive exercise. The nurse will regularly weigh the patient, do a complete diet history and nutritional assessment, monitor the patient’s intake and output, supervise visits to the bathroom, provide company for the patient during meals, restrict excessive exercise, teach what a proper diet consists of, be supportive, and acknowledge the patient’s feelings. The patient will also have severe body image disturbance. An outcome to expect is that the patient verbalizes a positive view of herself and her body. The nurse will have to do a lot of teaching about the mechanics of the body, how it grows and develops, and the effects of food on the body. Some other diagnoses include altered family processes, ineffective individual coping, knowledge deficit, and altered thought processes. Some treatments the patient may be going through involve psychoanalytic, cognitive/behavioral, group, family, nutritional, pharmacological, and possible emergency therapy. The patient may also be on medications such as antidepressants, anxiolytics, prokinetic agents, and estrogens. The patient may be on an inpatient or outpatient setting. The nurse needs to be aware that these patients take a long time to treat, making his or her work discouraging and frustrating at times. In treating patients with eating disorders, the nurse has to incorporate knowledge of pharmacology, psychology, physiological processes, and care specific to each patient.

Antimicrobial Activity in the Composite and Mint Families

by Katie N. West

Mentor: Dr. Charlotte Christy, Biology

The design of this project is such that extracts from identified plants can be tested for antimicrobial activity against *Escherichia coli* (*E. coli*) and *Staphylococcus aureus* (*S. aureus*). Experimental plants were collected along roadsides, in fields and in wooded areas in the following counties of Georgia: Burke, Columbia, Richmond, and Thomas. Plant material from the root, stem, leaf and flower were extracted in methylene chloride (Fischer, Fair Lawn, NJ). The plants were tested for antimicrobial activity using the agar diffusion assay method. Antimicrobial activities of these plant parts were compared to solvent control bactericidal data, and then the most active plants were further tested in hopes of determining quantitatively the amounts of antimicrobial activity, as well as the minimal inhibitory concentrations and the minimal

bacterial concentrations. After extensive testing, it was concluded that methylene chloride should not be used in extracting plant materials, due to its high evaporative rate, resulting in toxicity of bacteria, yielding false positive results. However, this research does present a rapid and efficient method of screening plant extracts for antimicrobial activity, when an appropriate solvent is chosen. The focus of the poster will be on methods, rather than results, providing the information needed to screen plant compounds efficiently for antimicrobial activity.

P2 Receptor Regulation of $[Ca^{2+}]_i$ in Cultured Mouse Mesangial Cells

by Ian M. Rivera

Mentors: Dr. Richard Griner, Biology, Augusta State University, and Dr. Edward W. Inscho, Physiology, Medical College of Georgia

It is acknowledged that renal failure is attributed to collective nephron malfunction. The glomerulus is an integral component of the nephron and is innervated with the glomerular mesangium, whereupon mesangial cells are suspended within the matrix. Mesangial cells may play a crucial role in the regulation of glomerular function; therefore, obtaining a clearer understanding of how mesangial cells work has significant value.

The purpose of this study is to better understand mesangial cell function by measuring intracellular calcium concentration $[Ca^{2+}]_i$ from activation of P2 receptors. Experiments were performed to establish the pharmacological profile of P2 receptors and identify the signal transduction pathway for observed increases in $[Ca^{2+}]_i$ in cultured mouse mesangial cells (MMC).

Specific P2 receptors of MMC were identified by comparing responses to various P2 receptor agonists to rank-order-potency-profiles of microvascular smooth muscle (and other cell types) using the same agonists. Experiments were also performed to examine the responses of MMC to depolarization of the cell membrane and to non-specific $[Ca^{2+}]_i$ channel blockade.

This study revealed MMC express the P2X7 and P2Y4 receptor in their phenotype and fail to express the P2X1 and P2Y2. These data are supported with western blot analysis. Furthermore, it was observed that MMC failed to express voltage-gated $[Ca^{2+}]_i$ channels and non-specific $[Ca^{2+}]_i$ channels.

These data support the hypothesis that observed increases in $[Ca^{2+}]_i$ from activation of P2 receptors are due partly to the influx of extracellular $[Ca^{2+}]_i$ (from activation of the P2X7 receptor) with the majority of the observed increase due to mobilization of $[Ca^{2+}]_i$ from intracellular stores.

Disgust and Preference for Nontraditional Colored Food

by April S. Zahner and Dana C. Lonaker

Mentor: Dr. Robert Reeves, Psychology

The purpose of this study was to examine the role of disgust sensitivity on preference for traditionally and nontraditionally colored food. Disgust stands out among the basic emotions in that it is specifically related to a particular motivational system (hunger) and to a particular part of the body (mouth). Disgust is also important for social and developmental psychology in that, along with fear, it is a primary means for socialization (Rozin, Haidt, and McCauley, 2000, p.638). We hypothesized that disgust sensitivity would be negatively related to preferences for nontraditionally colored foods and positively related to traditionally colored foods.

Research has found that unlike other emotions, people almost always know what has made them feel disgusted (D'Amato, 1998). Rozin, Haidt, and McCauley (2000) have identified food as a "core disgust item" because food meets the criteria of being ingested or orally incorporated, containing a sense of offensiveness, and being easily contaminated. In the present study, 24 university students (18 females and 6 males) rated preferences for traditionally and nontraditionally colored applesauce (yellow and blue, respectively) and ketchup (red and purple, respectively).

To disguise the true purpose of the study, participants also rated preference for brand name and generic versions of cereal and soft drinks. Each food item was placed in a white bowl and participants were allowed to look, smell, or stir the foods but they were not allowed to taste them. Then each food item was rated on a 10-point scale with 1= food had no appeal and 10= food was very appealing. Next each participant completed the 8-item Disgust-Scale 2 (Haidt, McCauley, and Rozin, 1993), which measures the tendency to react to stimuli with disgust (i.e., disgust sensitivity).

The appeal of nontraditional blue applesauce ($M=4.54$) was significantly lower than that for traditional yellow applesauce ($M=7.54$, $p<.003$) and the appeal of nontraditional purple ketchup ($M=2.75$) was significantly lower than that for traditional red ketchup ($M=7.67$, $p<.01$). As predicted, disgust sensitivity was negatively correlated with appeal for the nontraditional blue applesauce [$r(22)=-.32$, $p<.05$, one-tailed] and the nontraditional purple ketchup [$r(22)=-.44$, $p<.05$]. Also as predicted, disgust sensitivity was positively correlated with appeal for the traditional yellow applesauce [$r(22)=.31$, $p<.05$, one-tailed] and the traditional red ketchup [$r(22)=.18$, $p<.05$, one-tailed]. These results may reflect evolutionary and/or socially learned preferences for certain food color and may have implications for marketing of food products.

Children are the primary consumers of nontraditionally colored food such as applesauce and ketchup. Older adult consumers may possibly associate purple and blue colored food with mold. Which, if ingested, might cause illness.

Adult consumers probably also prefer traditionally colored food because they are more familiar. Research on the mere exposure effect (Brehm, Kassin, and Fein, 2002) could support this explanation. Future research should further explain the relationship between food color and preference. The disgust phenomenon could also be useful to marketing research.

“Obligatory exercise” and its relationship to Obsessive compulsive symptomatology

by Vivian Price, Emily Bailey, Tiffany Jones, Catherine Edmunds

Mentor: Dr. Rebecca L. Rogers, Psychology

Exercise is increasingly viewed as a source of many health benefits (e.g., reduced risk of cardiovascular disease, reduced stress; Rice, 1998). Society has traditionally been very accepting of those who are disciplined in their exercise habits, and even encourages physical activity fueled by a drive for thinness (Cockerill & Riddington, 1996). Although goal setting for physical fitness is often helpful in maintaining a healthy lifestyle, the will to improve personal appearance and well-being can result in obsessive-like behaviors. Over-concern for body image has been linked to anxiety (Diehl, Johnson, Rogers, & Petrie, 1998) and this anxiety may manifest itself in a compulsion to exercise.

Researchers have coined the term “obligatory exercise” (Cockerill & Riddington) to describe this compulsion to exercise. Based on a review of the literature, obligatory exercise may be described as: a maladaptive pattern of exercise that interferes with occupation and social interaction (e.g., absence from work, family functions, and social responsibilities) as well as body image concerns leading to a preoccupation with physical perfection and control of the environment. The above characteristics seem to mirror the more general criteria for obsessive compulsive disorder. Obsessive compulsive disorder is characterized by inappropriate, persistent thoughts and/or impulses that cause marked anxiety and distress and are not easily neutralized. The person attempts to ignore or suppress such thoughts and/or impulses (and often feels compelled to do so) by engaging in repetitive behaviors or mental acts (American Psychiatric Association, 2000).

There is some evidence relating obligatory exercise to obsessive compulsive behaviors. For example, Gulker, Laskis, and Kuba (2001) found that obligatory exercisers scored higher on scales of obsessive compulsiveness. In terms of treatment, research has shown that cognitive behavioral therapy (CBT) is useful in the treatment of obsessive compulsive disorder (Abramowitz, Brigidi, & Roche, 2001; Basco, Glickman, Weatherford, & Ryser, 2000). CBT is defined as “those approaches that attempt to modify existing or anticipated disorders by virtue of altering cognitions or cognitive processes” (Rice, 1998, p. 120). It may incorporate techniques such as problem solving strategies, behavioral restructuring, and self-monitoring.

Since obligatory exercise appears closely related to obsessive compulsive disorder, CBT should have a significant effect on the treatment of obligatory exercise. The objective of this paper is threefold. First, the theoretical and empirical connections between obligatory exercise and obsessive compulsive disorder will be specifically outlined. Second, a set of DSM-IV-like criteria for obligatory exercise will be offered. Finally, a treatment plan for a person struggling with obligatory exercise issues will be described. It is expected that this paper will increase awareness of obligatory exercise as a source of distress and dysfunction as well provide a sense of hope in the ability to treat persons with this type of problem.

Evaluation of Aggression Replacement Training

by Jesús M. Castro Sanchez

Mentor: Dr. Deborah S. Richardson, Psychology

This project was designed to evaluate a curriculum to train Richmond County teachers as trainers for an Aggression Replacement Training program. Aggression Replacement Training (ART), developed by Goldstein, Glick, and Gibbs (1998), is a program for aggressive adolescents, which seeks to increase interpersonal competence, anger control, and moral reasoning. The teachers attended two separate ART sessions. In the initial session (Spring 2002) the teachers attended lectures on aggression, empathy, conflict management, and moral development and completed questionnaires designed to assess their knowledge of those topics and their evaluation of the ART program.

On the follow-up session (November 2002) the teachers completed those questionnaires again; they then were assigned to groups and were engaged in discussions with group leaders about conflict management, behavioral management, and a focus group on the response to ART. The present evaluation of Aggression Replacement Training compares the knowledge and response of the teachers from the first to second training.

The teachers had increased their evaluation of ART from the first ($\bar{M} = 4.35$) to the second ($\bar{M} = 5.25$) session, $t(18) = -2.28$ (one-tailed), $p < .05$. It was disappointing to discover that the trainers displayed a significant decrease in knowledge of ART, $t(19) = 4.19$, $p < .05$, from the first session ($\bar{M} = .61$) to the second one ($\bar{M} = .32$). Also, through further analysis, I found that trainers with higher knowledge of ART evaluated the program more positively ($M = 4.45$) than those who scored lower ($M = 3.57$) on ART knowledge, $t(9) = 2.27$ (one-tailed), $p < .05$. This same phenomenon can be found in the academic setting, in which those who perform well in a class and work hard display a positive evaluation of the class; and vice versa.

Although trainers showed a decrease in knowledge, some data provide evidence that ART training has an impact on the trainers. Perhaps there needs to be a “reinstatement” of knowledge in subsequent training sessions.

The National Honor Society of *Phi Kappa Phi*

www.aug.edu/pkp

Established in 1897, the Honor Society of Phi Kappa Phi is a century-old nonprofit organization that recognizes and promotes academic excellence in all disciplines of higher education. The Society was founded to cultivate a deep appreciation and respect for scholarship and is convinced that in recognizing and honoring those persons of good character who have excelled in scholarship, in whatever field, it will stimulate others to strive for excellence. With more than one million members from across the globe and 282 chapters located on university campuses throughout the United States, Puerto Rico, and the Philippines, Phi Kappa Phi is among the oldest and most respected academic honor societies. Students elected to membership in Phi Kappa Phi include the upper 7.5 percent of last-term juniors and the upper 10 percent of seniors, along with outstanding graduate students, faculty, and alumni.

Augusta State University 2002-2003 Inductees*Undergraduates*

Stacey Altman
Emily Bailey
Erin Cown
Jennifer Davis
Angela Eremito
Antar Fields
Jennifer Gordon
Jennifer Grant
Christa Griffin
Brad Harden
Monica Smith Hardy
Irina Hartmann
Mary Katherine Heare
Irida Herri
Heather Icenhour
Theresa Leathers
Aubrey Logue

Monica Marin
Mathew Morrison
Michelle Mohr
Rebekah Montgomery
Philippe O'Keefe
Sarah O'Neill
Ian Rivera
Brandice Schofe
Sammaad Shams
Julie Sisson
Jared Staples
Jeremy Jandergriff
Laura Von Seggern
Abraham Weaver
Katie West
Abraham Wilson

Graduate students

Gina Bassford
Tammy Lowery
Thomas Mueller
Zehra Rizv
Julie Tanner Wells
Lillian Wilson

Faculty

Dr. Thomas Colbert
Dr. Thomas Crute
Dr. Martin David Jones
Dr. Charlotte Price