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Letter from the editor

“Maybe it’s like this, Max—you know how, when you are working on a long and ordered piece, all sorts of bright and lovely ideas and images intrude. They have no place in what you are writing, and so if you are young, you write them in a notebook for future use. And you never use them because they are sparkling and alive like colored pebbles on a wave-washed shore. It’s impossible not to fill your pockets with them. But when you get home, they are dry and colorless. I’d like to pin down a few while they are still wet.”

John Steinbeck

I think we’ve pinned down some of the brightest and loveliest ideas and images in this volume. This is by far one of our most diverse issues, showcasing research in not only the humanities; but also in the disciplines of Mathematics, Criminal Justice, Social Work, Chemistry, Psychology, and Theater Arts. At The Review we aren’t the types to sit and watch the paint dry, but rather admire it for its brilliance and ability to cling to the surface, despite its fresh application. And, although these students will move on and their research will pale in comparison to what they will discover (and even publish) in the future, these pages will remain forever wet and glossy.

As always, the staff of The Undergraduate Review would like to thank the Adrian Tinsley Program (ATP) for funding the journal; The Office of the President, the Bridgewater Foundation; The Office of Undergraduate Research, and the faculty readers. Most of all, thank you to the dedicated BSC students and mentors for their time, effort and hard work on display here.

It is my pleasure to present to you Volume VI of The Undergraduate Review

STACY M NISTENDIRK
Managing Editor, The Undergraduate Review
# Table of Contents

**ATP GRANTS**

Geriatric Competency, Training, and Services: Surveying a Local Aging Access Point  
Toni Aiduk

The Role of Body Image and Social Anxiety in Problematic Drinking Behavior  
Kira Archibald

Salvia Divinorum Patterns of Use  
Christie Bowles

Managing Economic Crises; Bill Clinton and the Mexican Peso Crisis  
Liza Anne Cabral

Knowledge and Skepticism in Descartes’ *Meditations*  
Scott Campbell

Siblings of Children with Autism: An Exploratory Study of Sibling Concerns and Coping Strategies  
Mary Canha

The Torture of Alleged Terrorists Necessary for Public Safety or a Criminal Act?  
Michaela Clark

Finding the Pill on the Floor How Contrast Sensitivity Affects Daily Living Skills in Alzheimer’s Disease Patients  
Marlyn Colon

Domination, Individuality, and Moral Chaos: Nietzsche’s Will to Power  
Angel Cooper

Guantanamo Bay Just Preventative Detention of Terrorist or a Fundamental Violation of Due Process?  
Michelle Cubellis

Regional vs. Local Impact of Wind on Glaciers in the Andes Mountains  
Derek Ferris
Solar Observations During a Solar Minimum Using a Small Radio Telescope
Gary Forrester

“Double Consciousness” and the Racial Self in Zitkala-Ša’s *American Indian Stories*
Britta Gingras

The Visions of Lena Younger created by Lorraine Hansberry in *A Raisin in the Sun*
Lizandra Gomes

Do You See What I See?
Rachel Mullins

The Myth of the Female Sex Offender
Chelsea Horrocks

A Two-Dimensional, Linear–Elastic Model to Explain Radial Extensional Fractures, Pantheon Fossae, Caloris Basin, Mercury
Brianne McDonough

The “Bad Girl” Turned Feminist: The Femme Fatale and the Performance of Theory
Michelle Mercure

Hurting to Cope: Self-Injurious Behavior as an Escape from Self-Focus
Danielle Williams

**NCUR: NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH**

A Moral Investigation of Torture in the Post 9.11 World
Joe Moloney

**COURSEWORK**

Taking Refuge in “How:” Dissecting the Motives Behind Cholly’s Rape in *The Bluest Eye*
Rebecca Andrews

Reality, Skewed
Kathleen Camerlin
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The History & Development
Dawne Charters-Nelson

Plato’s Theory of Forms: Analogy and Metaphor in Plato’s 
*Republic*
Anthony Jannotta

A Review of Rape Statistics, Theories, and Policy
Gary Lowell

Naturalism and Opponents
Joe Spencer

Campus Rape Phenomenon
Keriann Speranza

Early American Literature in the Elementary School Classroom
Amanda Sullivan

1ST AND 2ND YEAR WORK

Silent Devotion
Thu Huynh

THESIS

The Power of Pain Gender, Sadism, and Masochism in the 
Works of Wilkie Collins
Helen Doyle
Tony Soprano: You don’t know who I am, do ya? Remember Johnny? Johnny Boy? Your kid brother? This thing of ours.

Uncle Junior: I was involved with that?

Tony Soprano: You and my dad. You two ran North Jersey.

Uncle Junior: We did?

Tony Soprano: Yeah.

Uncle Junior: Hmm. Well, that’s nice.

From *The Sopranos*

I’ve had the privilege of watching this journal become “this thing of ours” since day one. We’ve gotten better at putting the journal together every time. It’s a testament to the faculty, students, and staff who are responsible for the journal that you can’t actually tell that. Pretty much after our admittedly rough effort in Volume One, this journal has always looked top notch. After that first issue, when Stacy and I were spread out on the floor of the Honors Center (no Office of Undergraduate Research back then), her daughter Meg helping us paper clip together bundles of stuff to go here and there, we knew one thing: we had to do justice to the student writers and researchers that we published in *The Review*. We just had to. And so we did. The journal passed out of my hands to some extent after the first two years, but Stacy was always there. With great faith in the writers and readers of *The Review*, she has made this journal the exceptional contribution to the scholarly culture of campus that it is. For me, it feels right and true that in my last year as Director Stacy and I would team up one more time. But, now, at the end, I’m not sure what to say. There are only so many superlatives you can use to describe students and faculty, only so many ways to say thank you to the higher ups. What I really want to say is just this: when I quote “this thing of ours”? I really mean that. This beautiful book is all of ours. And it will last long after those of us who make up the “we” of this present moment are long gone. I remember that when I look at the new books coming out of the boxes—that new book smell in my nose: It’s not just that *The Review* will outlast me in this job. It will outlast me at this college. And that’s, well, that’s nice.

LEE TORDA
Director, The Office of Undergraduate Research
The Adrian Tinsley Program Grants section contains the results of the work of students who worked under the guidance of a faculty mentor during the ATP Summer Grant program. The opportunity for this ten-week research experience is open to all undergraduates, including both students with outstanding academic histories and students who show great promise. Grants were approved based on the quality of student proposals, and you will see the results of the extraordinary efforts these students produced.
Geriatric Competency, Training, and Services: Surveying a Local Aging Access Point

TONI AIDUK

By the year 2030, 61 million baby boomers will be between the ages of 66 and 84. Add to that cohort the nine million “oldest old,” or those born before 1946, and significant numbers of 70 million individuals will need access to aging related services. Researchers and policy makers predict huge shortfalls in services and resources for the elderly, and document—that even now—there are too few social workers in the geriatric field. Many of those currently in the field lack professional geriatric training and may not be adequately prepared to help aging clients. However, these studies focus on national estimates of need and availability of trained workers, and have, for the most part, not included information gleaned from a local aging services provider. This study addresses that gap using a community-based mixed methods approach.

Data collected by administering the Geriatric Social Work Competency Scale to direct care workers (n=50), and through interviews with key staff members of Old Colony Elder Services (n=20) reveal how frontline workers and managers perceive their geriatric competency, the educational and training background of employees, and ongoing training opportunities. This study also attempted to gain insight into client needs that are the most challenging to resolve, and if there are existing gaps between resources and client needs.

Literature review

The literature makes a solid case that competency in practice with the aging population is necessary, however, how does the literature define competence in aging? Actually, there were no definitions of competence in aging found in the literature reviewed for this project. Naito-Chan, Damron-Rodriguez and Simmons (2004) purport that a “primary indicator of organizational quality” is “age-appropriate delivery of services to older clients,” however, while that “age-appropriateness” speaks to competence in aging, it is still not a definition. Other researchers summarized the expectations and activities of social workers who work with elders, and these statements provide parameters of competence in aging, and clearly illustrate the uniqueness of additional knowledge and skills necessary to best advocate for elders. Social workers assist older people to maintain their independence and self-determination and assist older people to maintain or improve their quality of life through direct services and consultation, counseling, and education (CSWE, 2009).

Naito-Chan, Damron-Rodriguez and Simmons (2004) conducted a needs assessment with older adults, caregivers, social workers and employees to de-
termine how social work with elders is different from social work with other populations. These groups deemed if workers were going to be effective helpers of the older population and their families, they would possess necessary knowledge and skills to obtaining needed resources (e.g. medical equipment, transportation); in-home support; financial assistance; be knowledgeable about the special needs and experiences of older adults (for example, being widowed, having fears about going out at night); and they must also have “knowledge about special populations among older adults, such as gay and lesbian elders and Holocaust survivors, as well as specialized knowledge about the legal and ethical issues regarding the elderly” (p. 76). They also had the expectation that geriatric social workers would have knowledge and experience around providing advanced health care planning; health care arrangements; conducting comprehensive assessments which include functional and mental status assessment; knowledge about dementia; and chronic disease and its impact on functioning and pharmacology.

Health, mental health and substance abuse are specific areas in which increased services will be necessary for large numbers of older adults. As age increases, so does the likelihood of chronic illness diagnosis (Diwan & Hooyman, 2006, p. 3) and to be the most helpful, social workers should be knowledgeable about medical and psychosocial issues which individuals experience. Likewise, end-of-life care necessitates informed social workers to assist the aged and their families. The number of older adults who experience challenged mental health will increase to fifteen million by the year 2030, and since the mental health field is also experiencing a considerable shortage of workers with aging knowledge and experience, services will not come close to meeting the needs of a vastly increased elder population. Arguments for the uniqueness of aging practice are compelling, Rosen and Zlotnik (2001, p. 70) propose that demographics “suggest all social workers need gerontological competence in aging,” because they will encounter aging clients in many practice settings such as health care, child welfare and the schools” (Rosen, Zlotnik, Curl and Green, 2000). To further stress the point, the National Association of Social Workers (NASW) reported in 2004 that twenty-four percent of social worker’s caseloads had at least fifty percent older adults, and seventy-five percent had adults over the age of 55 (NASW, 2004, p. 9).

Consistent throughout the literature is the imperative to standardize competency in aging. Damron-Rodriguez, Lawrance, Barnett, and Simmons (2006) trace the process of standardizing and “defining geriatric social work competencies to be used nationally,” from the Geriatric Social Work White Papers, which provided a plan to proceed, all the way to the first Geriatric Social Work Competency Scale. Collaboration was vital to the process of competency development which included numerous structured interviews and surveys with consumers and providers. The much refined final product was “a comprehensive list of geriatric social work skills.” The revised Geriatric Social Work Competency Scale contains 40 items which are grouped into four parts. Each part has a list of ten knowledge, skills, or values important to effective work with and on behalf of older adults and their families. These skills are self rated on a scale of zero (not skilled at all) to four (expert skill). The scale can “capture self-assessment of skill development across the learning continuum, from BSW, to MSW and post-MSW” (CSWE Gero-Ed Center).

The competency scale has effectively measured the degree of competency of social work students and workers in aging (Hooyman, 2005; Mills-Dick, Geron and Erwin, 2007). Additionally, the scale has been used as a pretest and posttest to measure program effectiveness, and also serves as a guide for developing teaching resources, curricula, and education based collaborations. The Geriatric Social Work Competency Scale has, in essence, helped define aging competency and competency training.

Research introduction
Old Colony Elder Services (OCES) in Brockton is the source of data obtained for this research project. Old Colony is a large, complex organization which has approximately 130 employees and operates more than twelve programs which serves elders, their families, and caregivers. The organization’s mission is “to provide services that support the dignity and independence of elders by helping them to maximize their quality of life; live safely and in good health; and prevent unnecessary or premature institutionalization.” This project sought to explore how the organization fulfills its mission statement in light of worker’s geriatric competency, training, and challenges that managers and workers face in that endeavor. Managers were asked to participate through interviews, and frontline workers completed survey instruments. In total, six departments—intake and referral, home care, senior care options, program development, protective services, and nutrition - were available for this study.

Research questions & methodology
The questions broached by this research project are:

1. How do frontline workers of a typical regional aging access point agency (ASAP) assess their geriatric competency?

2. How are ASAP’s new hires prepared for competence in aging issues and in accessing local resources?
3. How does a large regional aging services agency update resources and provide on-going training to staff?

4. Are there gaps between resources offered by the agency and client needs, as perceived by frontline and management employees?

This study utilized a community-based mixed methods approach. Fifty of the frontline workers at OCES responded to a mostly quantitative, six page, two-part paper and pencil survey. The first part of this survey, was a two page expanded demographics instrument specifically designed for this project, and the second part, the Geriatric Social Work Competency scale developed by the Hartford Practicum Partnership Program, enabled subjects to determine their self-assessed skill level to work effectively with and on behalf of elders.

Information, covering topics of general interest, and issues specific to the subject's department, was collected from 20 key informants, namely, program directors, managers and supervisors. Individual semi-structured interviews covered their personal educational and experiential backgrounds, informal worker assessments, challenging needs, possible service gaps, and training. The questions were open-ended and each interview was audio taped and transcribed. Coding was inductively generated using a "grounded approach" (Glaser & Strauss, 1967).

**Findings**

**Quantitative findings**

**Geriatric Social Work Competency Scale results**
The GSWC scale is a list of 40 skill statements divided in four main categories. The responses to each of the statements on this self-assessment survey are based on a scale of 0 (not skilled at all) to 4 (very skilled, able to teach to another). Listed are the highest and lowest areas of employee confidence for each of the four categories. In parentheses after each category title is the self-assessed mean score of all frontline worker respondents at OCES in that particular section. After each statement is the self-assessed mean score for that particular skill or ability of frontline workers. The categories and skill statements and mean scores are:

I. Values, ethics, and theoretical perspectives (2.8101)
   4. Respect diversity among older adult clients, families, and professionals (e.g., class, race, ethnicity, gender, and sexual orientation). (3.29)

II. Assessment (2.9028)
   1. Use empathy and sensitive interviewing skills to engage older clients in identifying their strengths and problems. (3.42)
   8. Administer and interpret standardized assessment and diagnostic tools that are appropriate for use with older adults (e.g., depression scale, Mini-Mental Status Exam). (2.42)

III. Intervention (2.6291)
   1. Establish rapport and maintain an effective working relationship with older adults and family members. (3.35)
   3. Utilize group interventions with older adults and their families (e.g., bereavement groups, reminiscence groups). (1.94)

IV. Aging services, programs, and policies (2.3099)
   1. Provide outreach to older adults and their families to ensure appropriate use of the service continuum. (2.80)
   5. Develop program budgets that take into account diverse sources of financial support for the older population. (1.56)
   9. Identify the availability of resources and resource systems for older adults and their families. (2.80)

**Geriatric Social Work Competency Scale Discussion**
The frontline workers at OCES completed these assessments. The first section of 10 skill areas is entitled: “Values, ethics, and theoretical perspectives: knowledge and value base, which is applied through skills/competencies.” Respondents rated themselves highest (mean of 3.29) on statement four and indicated the strongest confidence in applying “ethical principles to decisions on behalf of all older clients with special attention to those who have limited decisional capacity.” The lowest confidence in section one (mean of 2.40) was in respondent’s ability to “relate social work perspectives and related theories to practice with older adults (e.g., person-in-environment, social justice).” The overall mean for all responses in this section was 2.8101.
The second section of 10 skill statements is: “Assessment.” In this skill area, respondents related the most confidence in their ability to “use empathy and sensitive interviewing skills to engage older clients in identifying their strengths and problems.” The mean for this statement was 3.42. The skill area for section two in which workers feel least confident in their ability is the eighth statement: “administer and interpret standardized assessment and diagnostic tools that are appropriate for use with older adults (e.g. depression scale, Mini-Mental Status Exam).” The mean for this self-assessed skill was 2.42. The mean for the entire second section was 2.9028.

The third section of the GSWC scale is “Intervention,” and the overall mean for this section was 2.6291. Workers expressed most confidence in their overall ability to, “establish rapport and maintain an effective working relationship with older adults and family members” (mean of 3.35), and the least confidence (mean 1.94) in their ability to “utilize group interventions with older adults and their families (e.g. bereavement groups, reminiscence groups).

In the last part of the scale workers have equal confidence in their ability to “provide outreach to older adults and their families to ensure appropriate use of the service continuum,” and “identify the availability of resources and resource systems for older adults and their families.” The mean for both of these skill statements was 2.80. The skill area in which frontline workers feel less confident in their ability (mean of 1.56) is statement five: “develop program budgets that take into account diverse sources of financial support for the older population.” The overall mean for “Aging services, programs, and policies” was 2.3099.

The first two sections of the GSWC scale - Values, ethics and theoretical perspectives, and Assessment – are the ones in which the workers seem to feel the most confident in their abilities, and have mean scores of 2.8101 and 2.9028, respectively. The two individual skills in which they assess themselves highest are using “empathy and sensitive interviewing skills to engage older clients in identifying their strengths and problems,” (mean score of 3.42) and “establishing rapport and maintaining an effective working relationship with older adults and family members,” (mean score of 3.35). The overall mean for 50 respondents and 40 skill statements was 2.6693.

### Table 1. Summary of Mean Scores on GSWC Sections I-IV and Overall Mean

<table>
<thead>
<tr>
<th>Sections of GSWC</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Values, Ethics, and Theoretical Perspectives</td>
<td>2.8101</td>
</tr>
<tr>
<td>II. Assessment</td>
<td>2.9028</td>
</tr>
<tr>
<td>III. Intervention</td>
<td>2.6921</td>
</tr>
<tr>
<td>IV. Aging Services, Programs, and Policies</td>
<td>2.3099</td>
</tr>
<tr>
<td>Mean score of 50 cases and all 4 sections</td>
<td>2.6693</td>
</tr>
</tbody>
</table>

### Qualitative findings

#### Managerial interviews
Twenty semi-structured interviews were conducted with program directors, managers, and supervisors. These interviews provided information about: length of employment by OCES, their educational/training background, the educational/training backgrounds of new hires, new employee training, ongoing training, skills necessary to work with older population, their overall assessment of their workers, the most difficult needs to help clients resolve, and what they perceived to be the greatest gap between client service needs and available resources.

The managerial staff has been employed by OCES an average of 9.7 years, with a range of 1-22 years. Fifty percent have been employed ten years or longer. The educational backgrounds among the respondents are varied. Five workers have a BSW, one has achieved a MSW, and three of these are licensed social workers. Also, ten employees have an undergraduate degree in a related human service field (e.g. psychology, criminal justice), one person has an undergraduate degree in gerontology, and there are three licensed nurses on the managerial staff.

Managers were asked, “In your opinion, what is the most important quality to enable someone to work successfully with an older population?” The question evoked forty answers that fall within four basic categories: general job skills; people skills; communication skills; and specific to elder’s knowledge and skills. According to the managers, active listening, patience, compassion and respect were the most important, the most often mentioned, qualities that enable someone to work successfully with the older population.
Informal assessment of frontline workers

A follow-up question was, “If it is quantifiable, are you able to
give a percentage to the number of supervisory challenges that
are a result of a worker not being aware of the uniqueness of the
aging population?” Many managers indicated there had been
“issues,” “inappropriate assumptions are being made,” and there
were “challenges because of not knowing the elderly population
well,” however, all agreed that they were not frequent enough
to attach a number to them. Overall, managers were sure that
if there is a problem as a result of not knowing the population
well enough, the worker has the resources to overcome that
obstacle. “If a person doesn’t know about aging – it’s always
reviewed and filled in.” While managers were not asked to
formally assess individuals, in the interviews they were asked to
rate the overall aging competence of the workers they supervised
on a scale similar to the GSWC – 0 (not skilled at all) to 4
(expert skill). One responded that her “average crew falls at 3
because everyone can learn to do things better.” Other responses
included: “3-4, because between four employees, they have 80
years in aging,” “between 3 -4 because they have to become
proficient quickly – the job requires it,” and “definitely 4, they
have much experience.” Two supervisors rated their group at
3, and one said “between 3-4, they are all in the process of
learning and life.” One group was rated individually at 3, 4,
3 with the supervisor comment that “they are all very good.”
Another rating was “they have a 4 in aging knowledge.” Except
for one supervisor, who gave her group of workers an average of
3 and a particular individual a rating of 1, all of the supervisor
ratings were higher than the frontline workers’ mean scores on
the GSWC scale.

New employee training

New employee training at OCES varies from one department
to another. Several managers report that Human Resources
does the “first round” of training, however, how long that training
lasts, and what it specifically entails, differed depending on
which manager was answering. One respondent said that when
there are enough new hires, they are taken through the agency
training program. This training was also referred to as orienta-
tion, and typically takes place within the first six months of hire.
The length of this training is reported to be from one day
to two. Most new hires spend time with their supervisors who
provide training specific to the department in which they are
employed. Many supervisors report having “come up with a
list of skills necessary to master,” “structured training covering
specific topics,” and do “their own team training” in conjunc-
tion with the department director. The supervisors are often
available daily to a new employee, and then on a weekly basis
when they both (employee and supervisor) feel confident in the
progressive and successful application of necessary skills and
knowledge to the work experience. Several managers noted
that they prefer to find out the learning style of new employees
and then implement a more personalized training plan with
them. New employees “shadow” more experienced employ-
ees anywhere from two weeks to two months, and longer as
needed.

Ongoing employee training

Monthly professional development as part of ongoing employ-
ee training at OCES is reported to be required for care man-
agers and optional for other employees. Speakers represent a

| General job skills | Ability to triage and assess needs quickly | Ability to work with others |
|                   | To be knowledgeable about resources         | Time management skills     |
| People skills     | Caring                                     | Honor                      |
|                   | Kindness                                   | Not focused on own agenda  |
|                   | Observant                                  | To approach people holisti-
| Communication skills | Crisis intervention                   | able to communicate via
|          | Good communication                         | email                      |
| Knowledge and skills related to elders | Ability to relate to seniors              | To allow for elder’s inde-
|                                                  | Understand self-determination            | pendence                  |
|                   |                                           | Knowledgeable of the age re-
|                   |                                           | lated psycho-bio experiences of older adults |
broad array of organizations, and in-house managerial staff also presents information. Some recently covered topics were hospice and visiting nurses. These monthly meetings are mostly around direct elder issues, but are sometimes indirectly related, i.e. veteran’s issues. Several managers said that participation is based on a worker’s evaluation of the relevance of the proposed topic to their job.

Workers are encouraged to attend community programs and to take advantage of community based training opportunities and resources. Employees also attend regional and annual conferences, as well as trainings specific to their work. Additional training is available when computer systems are being enhance or changed, when software is being updated, and as the Executive Office of Elder Affairs (EOEA) requires specific trainings. Most supervisors report that when they themselves, or an employee in their department, attend a training or conference, it is expected they will in some way disseminate what they learned to their fellow workers.

Nurses and social workers are required to keep their training and skills updated, and OCES has provided opportunities for them to keep up with their continuing education units. Several interviewees mentioned an online Certificate in Aging Program by the Institute for Geriatric Social Work through Boston University, that OCES finances for employees. OCES provides a monthly email newsletter which often has important training topics and provides a way for employees to learn more about other services offered by the organization. Weekly and bi-weekly team meetings (frequency depended on which department), and supervision were considered to be primary ongoing training opportunities. This was a consistent part of the discussion and succinctly captured by one supervisor who said- “ongoing training cannot be escaped because of supervision.

Qualitative results of questions asked of both managers and frontline workers

Most difficult needs to help clients resolve
Two of the open-ended questions asked of the managerial staff were also asked of the frontline staff. The first question was, “What are the three most difficult needs to help clients resolve?” The frontline workers’ sixty-nine answers to the question regarding difficult needs fit into nine general categories – cultural/social, family/caregivers, financial resources, home care service level, housing, mental health, physical health, protective services, and resistant clients. The managers’ answers fit those categories and added two others – worker challenges and consumer challenges. Managers also included challenging needs that are peculiar to the departmental staff they are supervising. Heavy and complex course loads; the need for more workers; and confusing, demanding, even overwhelming MassHealth regulations were some of their concerns for the frontline workers. Most of the gaps were ultimately attributed to not enough money – from MassHealth, Medicare, or self-payees - to support the provision of services to cover elders. There are many needs, and some managers became animated and emotional while discussing them. One supervisor summed up the overall response to the needs and gaps issues by saying, “The needs are so big, the resources don’t meet them.”

Perceived gaps between client needs and available resources
Managers and frontline workers also responded to the question, “Where, if at all, do you see the greatest gap between client service needs and available resources?” These answers were also categorized and represented by nine general subject areas for the frontline workers’ responses. The managers’ answers fit these categories with the exception of the area of nutritional services, and the addition of two categories. Frontline workers perceived gaps between consumer needs and available resources in the areas of financial services, housing, mental health services, nutritional services, physical health services, services for moderate income level elders (non-poor), social and cultural services, sufficient home care service levels, and transportation services. Managers’ responses fit these categories, except for nutritional services which they omitted, and they added gaps considered specific to the agency, along with a brief list of gaps that might be considered more miscellaneous in nature.

Training topics presented by front line workers
Frontline workers were asked a third open-ended question about additional aging topics they would like covered in ongoing trainings. They suggested over eighty possible topics. These topics have been divided into six categories covering mental health; physical health and well being (which is sub-divided into health and protective services); service resources; family, caregiver, culture and diversity; legal, housing, and financial; and a catch-all category of other or unclear.

Implications and conclusion
Important next steps will be to increase the discussion on training – how does it increase competence? Also an examination of how to most effectively, with the best information, the highest impact method of delivery, and at the most affordable cost, equip workers who are already in the field of aging.

During the interviews, many of the managers stated that care of the aging population has tremendously increased in complexity over the past ten years. There are so many more elders, with so many more requests for such varied kinds of assistance. The older population does not fit into a simple or even predictable
category called “old”–they are much more diverse and complex than ever–and it makes sense that their needs will also be diverse and complex. The lists of challenging needs to help clients resolve, gaps between available services and client needs, as well as the frontline workers’ list of training topics, attest to the diversity and complexity of older people. Workers indicated a strong desire to receive continued training to help them do their jobs better. The workers’ desire for training, coupled with awareness of the needs and gaps, appears to indicate the importance of preparation and training to work with elders. Workers, whose knowledge and skills in aging are increased, will grow in their ability to work successfully, and to better serve the older consumers with whom they work.

Acknowledgements
Many thanks to the ATP Summer Grant Program leaders and facilitators for this opportunity to research and explore. Special thanks to Dr. Arnaa Alcon for her generous help and wise tutelage throughout this process, Drs. King-Frode and O’Malley for their ‘eyes’ and encouragement, and to Mary and Allison for sharing the experience. Thanks also to the directors and workers at Old Colony Elder Services for making this study possible.

Works Cited


The prevalence of problematic drinking behavior in college age students is an alarming 83% (NIAAA, 2008). Unfortunately problem alcohol use is not the only problem college students face today. College students, especially females, also have a high rate of body image problems and high rates of social anxiety. With all of these problems so prevalent in this population, it is necessary to examine how these variables interact with each other to affect an individual’s life. Many studies have paired these variables together to examine their connections and have found strong connections; however, no studies have examined the relationships among all three. Could these three variables coincide to exacerbate the effects each one has on an individual?

An individual’s expectancies about what alcohol will do for them have been shown to relate to quantity or frequency of a person’s drinking (Morris, Stewart, & Ham, 2005). Expectancies are a part of drinking behavior. Some common drinking expectancies individuals hold include believing that alcohol will make them more sociable, enhance their sexual performance, and increase their confidence level (Morris, Stewart & Ham, 2005). Research has suggested that alcohol expectancies act as moderators in the relationship between alcohol use and social anxiety (Morris, Stewart & Ham, 2005, Ruiz, Strain, & Langrod, 2007). The term moderator is used to describe a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent variable (Barron & Kenny, 1986). Thus, the relationship between social anxiety and alcohol use changes depending on the presence of alcohol expectancies.

Many college students struggle with problematic drinking behavior, however, their struggles do not end there. Many college age students struggle with body image concerns as well. Body image is defined as a complex, multidimensional construct that includes self-perceptions and attitudes (i.e., thoughts, feeling, and behaviors) with regard to the body (Avalos et al., 2005). Although most research has been in relation to body image and eating disorders, some research has implicated its connection to other risky health behaviors including problematic drinking (Striegel-Moore & Huydic, 1993). One study found drinking to be moderately correlated with the behaviors seen in eating disorders, especially body image concerns (Striegel-Moore & Huydic, 1993). Other studies have found that body image concerns may be a risk factor for developing alcohol abuse problems and alcoholism (Franko et al.,
A connection between frequency of drinking and an adolescent’s dissatisfaction with his/her body when comparing themselves with media figures was established in another study (Palmqvist & Santavirta, 2005). The result above sheds light on the connection between social comparisons, body image concerns, and alcohol use, which may point to the role of social anxiety in body image's relationship to drinking behavior.

Although some research supports the claim that body image and drinking behavior are connected, other studies have reported no relationship. A study conducted to measure the prevalence of problem eating and drinking behaviors in female collegiate athletes as compared to that of controls found no relationship between problem eating behaviors and drinking in either sample (Gutgesell, Moreau, & Thompson, 2003). The lack of a relationship may have been due to the small percentage of evident eating disorders. Another limitation of this study was not measuring problematic eating behaviors on a continuum.

Many studies have shown a connection between body image dissatisfaction and high social anxiety (e.g. Cash, Theriault, & Annis, 2004; Streigel-Moore, Silberstein, & Rodin, 1993). Social anxiety can be devastating for a college student who is constantly surrounded by unfamiliar people. Not only are they meeting new people within their school but in social events outside the classroom as well. The Diagnostic Statistical Manual (DSM-IV-TR) defines social anxiety as “a persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others” (APA, 2000). Continued investigation into the relationship between body image and social anxiety is warranted to create a more complete picture of the explanatory mechanisms responsible for this connection.

Body image has been connected to other risky health behaviors, such as eating disorders (Slade & Brodie, 1994), smoking (Granner, Black, & Abood, 2002), and unhealthy exercise patterns (Haumenblas & Fallon, 2001). It has been suggested that the reason for this connection may be to control one's weight, which is often a concern for those with a negative body image (Slade & Brodie, 1994). Behaviors such as restricting intake of food, binging, purging, and excessive exercise are some of the more obvious problems seen in weight control and are the hallmark of disorders, such as Bulimia Nervosa and Anorexia Nervosa. Smoking has also been implicated in body image issues, weight concern, and weight control (King, Matacin, Marcus, Bock, & Tripolone, 2000; McKee, Nhean, Hinson, & Mase, 2006). It is suggested that people, especially females, use cigarettes to control the urge to eat. Smoking may also exacerbate body image problems due to the image and smell that smoking cigarettes brings upon the smoker (King, et al., 2000). However, problematic drinking behavior is different from these other behaviors in that its use is in no way connected to weight control. In fact, alcohol, which is high in calories, can cause weight gain thus its connection to body image is likely due to factors other than weight control, such as anxiety.

Alcohol has a high co-morbidity rate with psychiatric disorders as well, especially anxiety disorders (Ruiz, Strain, & Langrod, 2007). Women are more likely than men to have both anxiety disorders and alcohol problems (Ruiz, Strain, & Langrod, 2007). In a study of 56 female subjects, alcohol outcome expectancies were found to be predictive of those who drink to cope with social anxiety (Carrigan, Ham, Thomas, & Randall, 2008). Subjects who reported using alcohol as a coping mechanism had higher levels of social anxiety than those who used other styles of coping (Carrigan, Ham, Thomas, & Randall, 2008).

The relationship between alcohol use and social anxiety is not clear-cut. A critical review of the literature did not reveal a relationship between problem drinking and social anxiety and further suggested that consuming a larger amount of alcohol was correlated with a lower level of social anxiety (Morris, Stewart & Ham, 2005). The authors suggested that one possible explanation for this finding was that individuals with social anxiety might find that avoiding social environments, including those where alcohol is available, is more effective in reducing anxiety than using alcohol. It was also suggested that a study previously conducted by the authors might be the key in understanding these findings (Morris, Stewart & Ham, 2005). In this study, social anxiety decreased as the number of drinks a subject had per week increased; however, social anxiety was positively correlated with alcohol use problems (Stewart, Morris, Melliings, & Komar, 2006). It is suggested that, while individuals with social anxiety may not drink more than the general population, they tend to drink for problematic reasons (Morris, Stewart, & Ham, 2005).

Gender differences also play an important role in this research since men and women may drink for different reasons. Previous research of gender differences in the relationship between social anxiety and alcohol consumption have yielded mixed results. In a study of 1,217 undergraduate psychology students, males reported slightly higher levels of social anxiety and alcohol use than females (Neighbors, 2007). Also in this study, social anxiety was examined as a moderating variable for the relationship between drinking and perceived social norms. The results showed a stronger connection between perceived norms and drinking when students had higher levels of social anxiety.
In summary, alcohol abuse has a devastating impact on the lives of college students. Reasons for drinking are apt to vary depending on the individual. For individuals with a negative body image and subsequent social anxiety, drinking may be used as a maladaptive coping strategy. There is some evidence for a connection between negative body image and unhealthy drinking habits, but this relationship is likely influenced by several factors, including but not limited to gender, drinking expectancies, and social anxiety. Social anxiety has been connected to both body image and alcohol use; however, very few studies have examined the three constructs together. The purpose of this study was to examine the relationship between social anxiety, body image concerns, and drinking behavior and expectancies. It was predicted that participants who reported higher social anxiety would also report more body image concerns. Also, those participants that reported higher social anxiety and more body image concerns would also report higher drinking levels and a greater expectancy for alcohol to increase their confidence and reduce their tension in social situations. These relationships were also predicted to be more evident in females than males.

Methods:
Participants
The participants in this study were 56 (38 females, 17 males) students from a southeastern Massachusetts college, recruited from introductory psychology classes. Participants were 75% Caucasian with a mean age of 20.23. The education level of these participants was well spread among the years of college education.

Procedure
Each participant was given a packet of questionnaires designed to measure body image, social anxiety, and drinking behavior respectively. Before completing the survey each participant read and signed and informed consent document. After completing this survey participants were given a debriefing sheet with contact information for questions or concerns. Participants received credit in introductory psychology classes for completing this survey. This study received IRB approval at Bridgewater State College before being implemented.

Statistical analysis
Descriptive statistics were conducted on the variables of interest. Independent t-tests were conducted to examine gender differences. To examine the relationships among social anxiety, body image, alcohol use, and drinking expectancies Pearson’s r correlations were conducted.

Measures
Several different scales were used to measure body image concern. The Multidimensional Body-Self Relations Questionnaires-Appearance Subscales (MBSRQ-AS; Cash et al., 1986) consists of the subscales Body Areas Satisfaction (BAS) and Appearance Evaluation (AE), which measure body satisfaction. Overweight Preoccupation (OWP) measures concern about body weight and Self-Classified Weight (SCW) measures the participant’s perception of his/her own weight (Cash et al., 2000). The Physical Appearance State and Trait Anxiety Scale: Trait Version (PASTAS; Reed, et al., 1991) was also used to measure body image. Specifically it assesses which body parts cause the participant concern or anxiety. The Drive For Muscularity Scale (McCreary & Sasse, 2000) and the Male Body Attitudes Scale (MBAS) were added to increase the items in the survey measuring body image concerns that are more typical of males. The Leibowitz Social Anxiety Scale (LSAS; Leibowitz, 1987) was used as a basic measure of social anxiety. This scale can be divided into avoid and anxiety subscales or a total score can be used. The Social Appearance Anxiety Scale (SAAS; Hart, et al., 2008) is a 16-item survey that was used to calculate how a participant’s social self-image is altered due to the amount of anxiety they feel in social situations. The Alcohol Use Disorders Identification Test (AUDIT; WHO, 2001) was used to measure the extent of a participant’s risky drinking or how heavy a participant drinks. The revised Drinking Expectancy Questionnaire (DEQ-R; Lee et al., 2003) was used to measure the expectancies each participant has about what drinking will do for them. The DEQ-R is composed of five subscales: Increased Confidence, Tension Reduction, Increased Sexual Interest, Cognitive Enhancement, and Negative Consequences.

Results:
On the Physical Appearance Trait and State (PASTAS) the female participants’ mean score was significantly higher than that of the male participants suggesting that females have more dissatisfaction in specific body areas than males, t(55) = 3.19, p = .002. Males scored significantly lower on the Male Body Attitudes Scale (MBAS) than the females suggesting that females have higher body dissatisfaction, t(31.705) = 2.11, p = .043. Females scored significantly higher than males on the Drive for Muscularity Scale suggesting males have a higher drive for muscularity, t(17.902) = -3.07, p = .007. All other mean differences between the genders were nonsignificant (see Table 1).

As predicted, in females, significant negative correlations were seen between the MBSRQ Appearance Evaluation and Body Areas Satisfaction subscales and the LSAS total score, suggesting that a female’s level of social anxiety is correlated with her body
However, contrary to the predictions of this study, in females there were no significant correlations emerged between social anxiety and drinking behavior as measured by the AUDIT. Although neither the body image measures nor the social anxiety scales were correlated with the drinking measure, they were significantly correlated with drinking expectancies. The MBSRQ BAS and AE subscales were significantly negatively correlated with the DEQ Increased Confidence subscale in females, suggesting that women who are less satisfied with their appearance have a stronger expectancy for alcohol to increase their confidence. The LSAS total score was significantly positively correlated with the DEQ Increased Confidence subscale suggesting that females with higher levels of social anxiety have stronger expectancies that alcohol will increase their confidence (see Table 2).

For males, body image was measured using the MBAS. The MBAS was significantly positively correlated with the LSAS total score suggesting that males with more body image concerns also report more anxiety. However, identical to the females, male body image did not correlate with the level of alcohol consumed by the participant. Also, the AUDIT was not correlated with the LSAS in males suggesting that the level of social anxiety of a participant was not connected to their drinking habits. The MBAS was significantly positively correlated with the DEQ Increased Confidence subscale. Males matched the pattern of females in the correlation between

**Table 1. Mean Scale Scores as a Function of Gender**

<table>
<thead>
<tr>
<th>Scales</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Image</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBSRQ- AE</td>
<td>3.52</td>
<td>3.15</td>
</tr>
<tr>
<td>MBSRQ- BAS</td>
<td>3.39</td>
<td>3.32</td>
</tr>
<tr>
<td>Drive for Muscularity</td>
<td>4.55**</td>
<td>5.43**</td>
</tr>
<tr>
<td>MBAS</td>
<td>62.35*</td>
<td>72.8*</td>
</tr>
<tr>
<td>PASTAS</td>
<td>11.59**</td>
<td>21.85**</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAAS</td>
<td>1.81</td>
<td>2.23</td>
</tr>
<tr>
<td>LSAS</td>
<td>22.47</td>
<td>26.05</td>
</tr>
<tr>
<td>Drinking</td>
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<td></td>
</tr>
<tr>
<td>AUDIT</td>
<td>6.53</td>
<td>5.28</td>
</tr>
<tr>
<td>DEQ- TR</td>
<td>9.69</td>
<td>9.51</td>
</tr>
<tr>
<td>DEQ- IC</td>
<td>38.13</td>
<td>36.54</td>
</tr>
</tbody>
</table>

Note. The lower the score on MBSRQ subscale scores the more body image concerns. The lower the score on the Drive for Muscularity scale the higher the drive to change ones muscle tone.

T-tests significance *p<.05, **p<.01

**Table 2 Female Correlations**

<table>
<thead>
<tr>
<th>Measure</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5.</th>
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</thead>
<tbody>
<tr>
<td>1. LSAS Total Score</td>
<td>---</td>
<td>-.042</td>
<td>-.482**</td>
<td>-.407**</td>
<td>.393*</td>
</tr>
<tr>
<td>2. Total Score AUDIT</td>
<td>---</td>
<td>.010</td>
<td>.013</td>
<td>.361*</td>
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</tr>
<tr>
<td>3. Body Areas Satisfaction MBSRQ</td>
<td>---</td>
<td>.807**</td>
<td>-.492**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Appearance Evaluation MBSRQ</td>
<td>---</td>
<td>-.350</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. DEQ Increased Confidence</td>
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</tbody>
</table>

*p<.05, **p<.01

**Table 3 Male Correlations**

<table>
<thead>
<tr>
<th>Measure</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LSAS Total Score</td>
<td>---</td>
<td>.262</td>
<td>-.520*</td>
<td>-.477</td>
<td>.689**</td>
</tr>
<tr>
<td>2. Total Score AUDIT</td>
<td>---</td>
<td>.326</td>
<td>-.451</td>
<td>.626*</td>
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<tr>
<td>3. MBAS Total</td>
<td>---</td>
<td>-.300*</td>
<td>.336*</td>
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</tr>
<tr>
<td>4. Drive for Muscularity</td>
<td>---</td>
<td>.170</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. DEQ Increased Confidence</td>
<td>---</td>
<td></td>
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</tbody>
</table>

*p<.05, **p<.01
level of social anxiety and expectation of alcohol to increase their confidence level. The LSAS total score for males was significantly positively correlated with the DEQ Increased Confidence subscale (see Table 3).

Discussion:
The purpose of this study was to examine the relationships among social anxiety, alcohol use, and body image. In addition, drinking expectancies were examined to determine their role in these relationships. Typical gender differences in body image concerns were found with females showing more concern than males. Females also reported higher social anxiety. Previous research has shown a connection between social anxiety and body image, consistent with the findings of this study (Cash, Therriault, & Annis, 2004; Streigel-Moore, Silberstein, & Rodin, 1993). This connection has rarely been studied in males, however in the current study this connection was found in both genders. This suggests that gender may not play a role in this connection so further investigation is warranted to make it clearer. Since females scored higher in both social anxiety and body image concerns, it can be assumed that social anxiety and body image concerns are more prevalent in females, even though they are also seen in males.

Similar to previous research, social anxiety’s connection with drinking was found to be complex (Morris, Stewart, & Ham, 2005). Contrary to the hypothesis of this study the quantity of drinking was not found to be connected with a participant’s level of social anxiety nor was it connected with body image concerns in either gender. However, expectancies of drinking did seem to be connected to social anxiety, especially the expectancy of increased confidence. This connection was seen in both males and females suggesting that participants with a higher level of social anxiety may expect alcohol to increase their confidence in social situations. Males seem to also show the same pattern as females in that males with a more negative body image expect alcohol to increase their confidence level more than males who are more satisfied with their body. Even though the frequency and quantity of drinking was not connected to social anxiety level, this study suggests that drinking is used as a tool to increase confidence in public situations. Also, since body image concerns were correlated with the expectancy for alcohol to increase the confidence of the drinker, a connection between social anxiety, body image concerns, and drinking expectancies may be found through further investigation. This connection may become more evident if future studies include more participants, especially more participants who drink. If this is true, a negative body image may cause a person to become more socially anxious, and possibly use alcohol to increase their confidence in a social situation.

It has been suggested that those with social anxiety avoid social situations to lower their chance of experiencing anxiety. As a result, frequency and quantity of drinking may be lower since alcohol consumption, especially in college age students, usually occurs in a social setting (Morris, Stewart, & Ham, 2005). Previous studies have shown a connection between drinking and body image concerns in females (Streigel-Moore, & Huydic, 1993; Franko, Dorer, Keel, Jackson, Manzo, & Herzog, 2005). Social anxiety may therefore be a more important factor in the connection between body image and drinking than gender. However, males did have lower levels of social anxiety and a more positive body image than females, which implies these problems may be more prevalent in females.

This study did have some limitations. First the sample size was small. A larger sample size including more males and more drinkers would increase the statistical power and thus allow more significant relationships to be revealed. In future studies more complex statistical work should be done as well to more accurately portray the connections that were revealed in this study between drinking expectancies, social anxiety and body image. In future work the focus should be more on expectancies than frequency and quantity of the participants’ drinking. The connections between social anxiety, body image, and drinking expectancies revealed suggest that additional research in this area is warranted to better understand why college students drink.

References


Salvia Divinorum: Patterns of Use

CHRISTIE BOWLES

This study focuses on 13 salvia divinorum users, specifically seeking to understand the social, situational, and individual factors influencing their decision to use. Through semi-structured, in-depth interviews, patterns such as the methods of use, settings of use, other frequently used drugs, and persistence or desistance of use are explored. Currently, there is limited research on salvia or the people who use this drug, and without this substantial research, the most effective way to address salvia use will remain unknown.

Salvia divinorum is a naturally occurring hallucinogen, historically used by the native people of Oaxaca, Mexico as a spiritual, ceremonial, and healing tool (Ball, 2007; Delgarno, 2007). Today, it can be found in many parts of the world, used for many different purposes. Presently, salvia is sold online and in head shops across Massachusetts. Recently, the Massachusetts legislature has proposed the criminalization of salvia, as has Delaware, Florida, Louisiana, and Illinois, banning the possession and sale of salvia under state law (it is legal under federal law). However, without understanding the factors that shape the patterns of salvia use among these users, it is likely that this policy will fail the users.

The overall use patterns of the sample in this study show that criminalization will not be necessary. Salvia divinorum is nontoxic, non-addictive, and most users use this drug in safe places. Most users do not use frequently, and most do not use in public, around strangers, or even at large-scale parties. As a result, this drug should remain legal, with an 18-year old age restriction for the purchase of the drug.

METHODOLOGY

Qualitative methods were employed by conducting in-depth, semi-structured interviews pertaining to how, when, where, and with whom these individuals use the drug, and how those experiences show varying patterns of use. Prior to the commencement of the interview, each participant signed an informed consent form and received a $20 Best Buy gift card for his/her time. The participants were interviewed face-to-face in a manner to solicit a conversation, and the interviews were digitally recorded. The use of probing and open-ended questions was also employed, allowing the participants to expand on their explanations and descriptions in greater detail. This method gives the data a humanistic quality and tells a story of their experiences.
SAMPLING

To gather participants, two sampling methods were used. Flyers were distributed around Massachusetts, mainly the Boston and Cambridge areas, particularly near college campuses and stores where bulletin boards were present. When necessary, a signed flyer-hanging permission form was obtained. Flyers were also hung in coffee shops, Laundromats, and on light-posts. The flyers for the study included information on the gift card incentive, the age and use requirement, the study’s interest in salvia use experiences, and email contact information.

The use of the snowball sampling method was also employed. At the end of an interview, participants were asked if they could recommend another salvia user whom may also be interested in participating in the study. Given this method has been successful in obtaining participants for drug studies, I expected this method to provide potential participants. However, gathering interviews via flyer hanging was much more successful.

LIMITATIONS

This study has some limitations. The sample size for this study is relatively small. The ideal size of a study of this nature is 30 – 50 participants. Using convenience and purposive sampling is also a limitation. Since past studies discuss college students as primary users, flyers were hung around college campuses. By hanging flyers in certain areas and not others, this may have affected who saw the flier and therefore, who was in the sample. It is very likely that those salvia users who responded to the flier could be different from those users who did not. Moreover, fewer females than males responded to the flyer; perhaps because of the nature of the gift card incentive. Thus, this sample may not be representative of all salvia users.

The average age of this sample is 20.2 years with a range of 18 to 23 years (see Table 1). The participants in this study are comparable to those studies of hallucinogen users in general (e.g., Chilcoat and Shutz, 1996) and salvia users more specifically (Lange, Reed, Croff, Clapp, 2008). Most identify as white or Caucasian (70%), males (85%), attending college (92%). Most of the sample identify as heterosexual (85%). The majority of the sample’s income includes a variety of part-time occupations. Of the total sample, 31% do not have an income and one participant is a fulltime (FT) employee. Of the total sample, one participant explained he/she had been arrested for a drug related offense in the past.

THE SAMPLE

<table>
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<tr>
<th>Table 1: Sample Characteristics</th>
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<tbody>
<tr>
<td>Name</td>
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<tr>
<td>Daisy</td>
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</table>
PHARMACOLOGICAL, SITUATIONAL, & INDIVIDUAL FACTORS

The pharmacological, situational and individual factors are critical to understanding onset, persistence and desistance of use, as well as when and how they use the drug. Zinberg’s (1984) well-known book, *Drug, Set, and Setting*, explains how the drug, set, and setting affect a user’s drug experience and his/her persistence or desistance from use. It is apparent in these data that the drug, set, and setting heavily weigh on the type of experience the user may have, and how that may affect their future salvia use.

Drug

The pharmacological properties of the drug can affect the user’s body and thoughts, which for salvia varies by the nature of the drug consumed (dried leaves, natural leaves, or an extract added to leaves), the method used (smoked or chewed), and the potency (extract level) of the drug. The pharmacological effects of salvia may also change if salvia is combined with other drugs, before, during, or after salvia ingestion. All of the participants in this study are poly-drug users; they engage in many types of licit and illicit drug use, either at one event or throughout their lives. Table 2 demonstrates the drugs this sample has used.

Salvia divinorum may also be the most potent naturally occurring hallucinogen among all hallucinogens, according to many medical experts (Cheyene, 2005). When smoked, the experience usually occurs within 30 seconds, and peaks for about 5-6 minutes. The effects of salvia generally last from 15 to 30 minutes and typically end within an hour of consumption. Users claim that the drug opens their minds and allows them to explore another side of reality.

Research suggests salvia is nontoxic and non-addictive, with no reports of deaths from overdose, and therefore, no treatment for use (Halpern, 2003). According to Halpern and Sewell (2005), salvia has had “no reported health risks” (p522). Likewise, the members of this sample of salvia users indicate neither cravings for nor withdrawal symptoms from salvia use. They also stress that they do not need to use salvia on a regular basis and appear to have a low potential for abuse and dependence (c.f., Baggot, Erowid and Erowid, 2004). This can be seen by the following quotes:

Researcher: Do you ever feel like you physically crave salvia at all?
Sebastian: No.
Researcher: Never?
Sebastian: No.

<table>
<thead>
<tr>
<th>Alc.</th>
<th>Mj</th>
<th>Mus</th>
<th>LSD</th>
<th>Tobr</th>
<th>Cc</th>
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Eddie: But it’s not something that I would, like, do all the time, it’s not something that I would ever get hooked to...Like, it’s just like, ‘ahh,’ it’s just like a rush. I wouldn’t do it daily; I wouldn’t do it probably even weekly ever...

Salvia and Hallucinogens

Many participants in this sample have used illegal hallucinogens – most commonly, LSD (75%) and Psilocybin mushrooms (68.75%). The similarities in patterns of use between salvia and these hallucinogens lie in the age of onset and the temporary persistence of use. The onset of hallucinogen use is most likely to occur between late teens and early 20s, and does not persist as individuals age into their late 20s (Chilcoat and Schutz, 1996). In this study, the age of onset of salvia use was between 17 and 25 years old and most have only used the drug between 1 and 5 times. Salvia, like other hallucinogens, is seldom sought out, used infrequently, and presented to the user by an acquaintance or friend. Some of the users in this sample have already desisted from use.

Contrary to popular assumptions, there are major differences between salvinorin A (the active ingredient in salvia divinorum) and LSD (d-lysergic acid diethylamide) and psilocybin or Psilocin (the active ingredients in psychedelic mushrooms). The effects of salvinorin A are shorter in duration, salvia users do not develop a tolerance for the drug, and it acts on a different receptor in the brain than does psilocybin, psilocin, or LSD. Salvia users explain that the key difference between salvia and LSD or mushrooms is the overall experience. Every participant in the study expressed that his or her experiences did not last longer than 15 – 20 minutes. Since the salvia experience is so short, if a user experiences a negative “trip,” it will last only for 10 minutes instead of perhaps 6 – 12 hours as with psychedelic mushrooms or LSD. These responses describe this occurrence:

Eddie: It [salvia] went away probably less than 10 minutes; you’re back on your feet. You feel a little weird but it’s just crazy how fast it comes and goes.

Daisy: ...It’s, it’s usually, the situation [of use] is usually pretty random... but I, I wouldn’t, I wouldn’t like make a day of it ya know, “Oh, I’m gonna trip on salvia today so I’m gonna make sure I have nothing to do, ya know it’s, it’s almost like an in between thing ya know.

Edward: Yeah, you could do that [salvia] like on your lunch break.

According to Roth (2006), salvia works by activating the kappa-opiod receptor within the brain. Thus, salvia does not activate 5-HT2A like LSD and psilocybin or psilocin (Roth, 2006; Baggot et al., 2004; Cheyene, 2005). This is an important note since media sources tend to describe salvia as, “just like” LSD and mushrooms. A few participants have suggested that although salvia may appear like LSD and mushrooms, with hallucinating visual experiences, salvia is very different.

Edward: [With salvia] there’s no greater discovery you can make, there’s no, like, enlightenment or like there’s no, like, break through or anything...Like with LSD...I feel like the reason people get so hooked on it is because, I mean one, it, it feels very, it like feels... both, physically and mentally good...unlike that of salvia. ’Cause that salvia is like clarity, “oh I realized I’m actually like, part of this new chair world.” But LSD is sort of like, greater humans’ virtual understanding, I think that’s the difference. Like sort of cognizant, like understanding.

Ronin: Like, with other hallucinogens like, umm, like acid and like psilocybin, like you’re the same person. You’re like, you still have control, if, if you close your eyes, like you can reset everything. But salvia, it kinda takes you. Like, it’s one hit and it just takes you right from the beginning. And with that it was just like, I was a completely different person.

Salvia and Marijuana

Aside from alcohol, marijuana is the most commonly used substance among this sample of salvia users (see Table 2). Similar to other studies of salvia (e.g., Khey, Miller, Griffin, 2008; Lange et al., 2008), most of these users report past year and current marijuana use. “Salvia divinorum use exists within a college student setting, yet may be concentrated among whites, males, students from more affluent backgrounds, and those that regularly use marijuana” (Khey et al., 2008). Fifteen of the sixteen participants (93.75%) have used marijuana and 68.7% use marijuana regularly. Wilcox, Wagner and Anthony (2007) indicate that marijuana users are 16 times more likely to be exposed to a hallucinogen and 12-13 times more likely to consume a hallucinogen. This is not surprising, given that users of drugs are often more likely to use drugs.

Many researchers contend that the relationship between marijuana use and salvia use is largely attributed to route of administration. Since both marijuana and salvia is best consumed using a water pipe or vaporizers, most marijuana users have the supplies necessary for salvia use. Moreover, most are accustomed to the process of smoking. In Mexico, many
young people have supplemented marijuana leaves for dried salvia leaves since dried salvia leaves have a milder effect than marijuana (Giroud, Felber, Augsburger, Horisberger, Rivier, and Mangin, 2000).

Set
Zinberg (1984) explains that the state of mind and personality of the user at the time of drug use also have an effect on the decision to use and the experience of the drug. The mood of the user at the time of consumption and the interests of the user, which varies from art, engineering, and music, may affect the experience sought and the reaction to the drug. Most importantly, users discuss that a positive frame of mind can enable a positive salvia experience. However, the state of mind of the user at the time of salvia consumption, if relaxed, happy or positive, and focused for entering a trip, may result in the most pleasurable experience for many users. This is evident with the following quotes:

Daisy: Uh, you, you kind of want to make sure you don’t have anything leaning over your head or, or, anything too intense… but, umm, you just have to make sure that you’re in like a, a good head space and a good, umm mood.

Marcus: I think with everything, if, if you go into it expecting to have a bad experience, you have a bad experience.

MD: I wouldn’t do it if I was in a bad state of mind, but any other time.

Vincent: I think you should be like in a good, good mind frame. You should like, ya know, you should like want to do it, ya know. And, like not because you wanna get fucked up. You should wanna do it to have like a new experience.

Most participants prefer to use indoors in an environment with which they are familiar and comfortable. Using salvia indoors allows for fewer unexpected distractions and interactions with unknown individuals. Most describe the need to create the “ideal setting,” or the most desirable setting where they are likely to have a positive experience. A preference for a calm, quiet, peaceful place to use salvia is a commonly used and desired setting. This can be seen by a few participants’ responses:

Researcher: So is that the environment you feel most comfortable with then?

Daisy: …I was in a small group of people, my close friends because when you trip, you don’t really want to be in a strange environment, um, with people you don’t really know…

MD: If I was in a situation where there was salvia and there was like a lot of people, I probably would not do it. I’d rather do it with um either by myself or with just a few of my closer friends.

Most of the participants also declare that salvia is not a party drug or a drug that should be used around a lot of people, loud noise, or in an unfamiliar setting. Ronin and Sebastian explain that salvia is not a drug that is used for fun.

Ronin: …Sometimes when you’re in a bad mood, you just want an escape, and you do it – it’s not a good idea. ’Cause it’s not a party drug at all… Salvia is not something you do for fun.

Sebastian: At a house party, which is the worst idea to smoke that at, but, whatever.
Onset
Studies of hallucinogen use demonstrate that most users first try hallucinogens during college-aged years, most commonly around 19 years of age, and use is rare before 15 and after 25 years of age (e.g., Chilcoat and Schutz, 1996). This sample of salvia users resembles that pattern of use. Most used salvia for the first time around late teens (as early as 17) and early twenties (up to 25 years). The onset of salvia use is largely attributed to their peers, and most received the drug from a friend (cf., Khey et al., 2008). Peers have been a consistent robust predictor of drug use.

Researcher: How were you introduced to it?
Joe: Well, a buddy of mine…in, uh, Connecticut. And, he actually, he told us that he had like, some like, stuff that we should try. If, if, like, we like, we liked weed or ya know, if we liked to drink, and like he said, it would just like be really cool to like, try it out...

Eddie: My friend was, my friends before I had done it, like raved about how crazy it was. So that kinda made me wanna try it. Umm, but really, nothing else.

Persistence and Desistance
The drug experience, including the physical effects to the body, both during and after the high, the drug’s effects on mood and perception, and the duration of the experience greatly influences both persistence and desistence. Depending on the user’s perception of past salvia-induced experiences, some users will continue use, while others will desist. Halpern (2003) found that for some users, the intense and unpredictable effects of salvia are disturbing and frightening enough to discourage future salvia use. While for others, those effects are appealing. For example, when asked about the pleasurable effects of salvia, two user’s state:

Eddie: I would do it again… it’s like a rush, like you never really know what—well I kind of learn what to expect a little bit, but I’m still waiting to maybe go on like on of those crazy trips that some of my friends have had and say that their like unbelievable and like introspective at points. Like, so yeah, I would do it again, until, until like I have a bad experience. But, I would, I would say that about anything.

Marlena: It’s just kind of a meditative thing and it allows you to do some, um, introspection even, and, um, it’s just so weird that it’s kinda fun to see what the effects will be. You never know what’s gonna happen.

Because salvia is legal in the state in which this study took place, its availability contributed to onset and persistence of salvia use. Most participants explain that they never purchase salvia themselves, but instead receive the drug for free from someone they know. Most also use salvia when it becomes available. Because of this, many participants consider themselves opportunistic salvia users. If the drug is presented to them, free of charge and in the right situation, they will persist to use the drug once again.

Discontinuing salvia use, for most, is attributed to many factors including, the unexpected effects, life choices, a preference for other drugs, and an unfulfilling drug experience. Vincent and Sebastian express little to no interest in using salvia again, and other participants prefer to use other drugs over salvia. Illinois, Edward, Daisy, and Sebastian, explain:

Researcher: Can you describe a time when you preferred other drugs instead of salvia?
Illinois: Every time.

Edward: I think I’ve stopped salvia for good. You’re just not, it’s, I mean, it’s not euphoric, it’s not, it doesn’t like, there’s no elation.

Daisy: I would most definitely choose another drug over salvia if it were offered to me.

Sebastian: Uh, I would choose any drug over salvia, come on!

Moreover, many explain they would no longer use if the drug was not easily available.

Each of the following participants explain their future use of salvia if salvia became illegal in Massachusetts:

Marcus: Um, I don’t know that I would have necessarily done it, had it been illegal already. Unless I was confronted with a very easy opportunity.

Jeff: Unless it were a question of, ‘oh it’s illegal, you can’t buy it in a store anymore. Now you have to, ya know, call this person, and that person.’ I wouldn’t go through that trouble for salvia.

Eddie: Like, salvia is just, like, a weird ass thing. Like, if I had to go outta my way to find like a dealer to buy it, just t like, get that punch in the throat, I doubt I would.
**DRUG POLICY IMPLICATIONS**

Throughout this study, every participant expressed that even though some states have taken steps to ban salvia, the policy on salvia should remain legal, in each state and federally. Most thought an age restriction around 18 years old would be suitable. The quotes below demonstrate the opinions of these users:

Edward: I think…there should be like some sort of middle ground. Like 18 is, is pretty good…Umm, I don’t think it poses like a threat to the general populous or whatever.

Jeff: I would probably say legal for over 18.

Marcus: On salvia, specifically, it doesn’t need to be regulated. Or, I guess if you want to regulate it, make it like cigarettes or alcohol,…make it 18.

Marlena: They should probably uh, just keep it regulated [at] 18 plus...

Vincent: Yeah, 16 or like 17, maybe, maybe 18. By 18, I think everybody should have tried it, ya know? But um, yeah, maybe like 16 or 15, somethin’ like that.

MD: I think that 18 is a good age.

This policy seems quite appropriate for a number of factors. The salvia users in this study admit to wanting to be responsible about use, including learning the facts on the effects of the drug, abstaining from driving while on salvia, and limiting mixing salvia with other drugs to avoid negative effects or experiences. All of the participants in this study strongly disagree that salvia is addictive. None of the participants indicated that they crave the drug on any one occasion. None of the participants used salvia on a regular basis, and most of the participants were uncertain if they would use salvia again.

Given its short duration and intense effects, salvia is not a party drug and I do not foresee it becoming such. Most users prefer to use in the privacy of their homes with close friends, refraining from use in public or around strangers. Very little harm to others could occur while on this drug. A friend was most commonly cited as the reason for first use, but the individual’s opinion on the effects of the drug is a contributing factor to use persistence and desistance.

Many of the users indicate that criminalization, for the most part, would affect their use of salvia. However, all of the participants continue to use illegal drugs, and most would choose illegal drugs over salvia. Moreover, criminalizing salvia could have serious consequences on research investigating the medical uses of the drug, and could potentially create more problems for the users. Since salvia is not addictive, overdose is not possible, and users cannot perform daily tasks on the drug, then a criminal justice sanction and its collateral consequences (e.g., loss of financial aid, inability to obtain public housing, difficulty obtaining employment, and having a criminal record) are more harmful than is using the drug. In consideration of these factors surrounding the patterns of salvia use, for most, salvia is used safely and responsibly. Salvia should remain legally accessible to those aged 18 and older and regulated by the government.

**DISCUSSION**

Salvia divinorum is an emerging hallucinogen that has a similar use pattern to other hallucinogens. It is mostly used while in college among white males. Given that salvia works by activating the kappa-opiod receptor within the brain and has short duration and intense effects, it is not a party drug, and most users prefer to use in the privacy of their homes or in quiet spaces around close friends. Very little harm to others could occur while on this drug. A friend was most commonly cited as the reason for first use, but the individual’s opinion on the effects of the drug is a contributing factor to use persistence and desistance.

Salvia users in the sample are poly-drug users in which they consume both legal and illegal drugs. After alcohol, marijuana is the most commonly used drug among this sample. While most of the sample of salvia users have used or are current users of marijuana, caution should be taken in calling marijuana a gateway drug to salvia. Given the low prevalence overall of salvia use (some studies indicate 4.4% (e.g., Khey et al., 2008) compared to marijuana use (40%), it is clear that using marijuana does not lead to using salvia. Moreover, the methods of purchasing salvia and marijuana are quite different. Since marijuana is a federally controlled substance, users must purchase it from the black market (an underground dealer). Salvia, in contrast, can be purchased on the Internet or in local head-shops. If salvia were to become illegal, it is very likely that these users would come into contact with dealers of a variety of potentially more addicting substances. As such, salvia divinorum should remain legal with an age restriction of 18 years.

The war on drugs policy relies on criminalizing certain substances with the goal of preventing use. However, very few
studies investigate the recreational use of salvia, including those factors that influence use. Criminalizing salvia seeks to impact users’ behaviors and recreational use with very little knowledge about the population of users this policy is targeting. To inform drug researchers and policy-makers about the factors associated with salvia use, this project contributes greatly to the understanding of the individuals who use salvia, how they use, when they use and why they use. Hearing the experiences and suggestions from these salvia users permits a more effective and humanizing drug policy for salvia divinorum.

References


Managing Economic Crises; 
Bill Clinton and the Mexican Peso Crisis

LIZA ANNE CABRAL

The year 1994 was one of the most tumultuous in the modern history of Mexico. During that year, two major political figures were assassinated, an uprising against the federal government began in the state of Chiapas, and the government attempted to finance its deficit payments with various debt instruments. The political instability caused by the assassinations and the Zapatista uprising, along with continued economic uncertainty within Mexico, caused foreign investment capital to flee Mexico. Because of this capital flight, Mexican President Ernesto Zedillo, decided in December of 1994 to devalue the Mexican currency. Instead of helping the situation, it actually caused more panic from foreign investors. More capital left Mexico and the government was in danger of defaulting on its debt payments. During this time period, President Bill Clinton kept a close eye on the situation with Mexico. Because of NAFTA and other economic agreements, the Mexican and American economies were intertwined more than ever. Mexico's inability to pay their debts, the increasing political instability, and the downward spiral in the economy worried many in the United States that it would have an adverse affect on a still recovering American economy.

On January 11, 1995, President Clinton announced that he was considering a series of economic measures to help the Mexican economy. On January 18, 1995, after consulting with Congressional leaders, Clinton implored Congress to approve a series of loan guarantees for the Mexican government to prop up their ailing economy. On January 31, 1995, because of Congressional inaction, Clinton announced that he was using his executive authority to provide the Mexican government, along with funds from the International Monetary Fund, with billions of dollars in loan guarantees. The president was widely cheered by the international community for his successful handling of the crisis (Walt, 2000). Over the next two months, Clinton continued to talk about the Mexican crisis, providing updates of the situation, holding it out as exemplar of quick action by the American government, and using it as an example for international audiences to discuss international economic regulatory reform. The question that this study seeks to answer is how did Clinton rhetorically manage the Mexican peso crisis?

Studying Clinton’s rhetoric surrounding the Mexican peso crisis is warranted on a couple of different levels. First, the study of presidential crisis rhetoric has been a fruitful line of research for scholars for the past thirty years (for
examples see: Bass, 1992; Bostdorff, 1994; Butler, 2002; Cherwitz, 1980; Cherwitz & Zagacki, 1986; Dow, 1989; Hahn, 1980; Heisey, 1986; Kiewe, 1993; Kuypers, 1997; Paris, 2002; Pratt, 1970; Windt, 1973). However, this literature focuses primarily on how presidents dealt with various military interventions. There is little no scholarship focusing on presidential rhetoric and economic crises. In a survey of the crisis literature, Bostdorff et. al (2008) argued that one of the severe weaknesses of this literature is the lack of exploration of how American presidents tackle tough economic situations. Considering that a president’s discourse on the economy is one of the essential aspects of his leadership (Wood, 2007) and the lack of scholarship on this subject, an analysis of Clinton’s communication on the Mexican Peso Crisis is warranted.

Additionally, President Clinton is an important transitional president in the history of American foreign policy. Clinton’s leadership helped America adapt and manage the transition from the Cold War to an era of globalization (Clinton Foreign Policy, 2000). The Mexican peso crisis is an important chapter in that transition. As yet, there has been no extensive study of Clinton and the Mexican peso crisis. Considering that the United States and the world currently face a huge economic emergency, understanding how the 42nd president managed this crisis may lay the groundwork for a larger theory about presidents and economic crisis management, while potentially establish a best practices model for other political leaders to emulate. Thus, studying how Clinton rhetorically managed the Mexican peso crisis has the potential to make theoretical inroads in the larger literature on crisis rhetoric.

To that end, this essay proceeds in four parts. First, I provide a brief outline of the literature on presidential crisis rhetoric. Then, I outline the method for this particular study. Thirdly, I analyze President Clinton’s rhetoric on the Mexican Peso Crisis over a two month period. Finally, I draw conclusions from this analysis.

Crisis Rhetoric

Over the past thirty years there have been a number of studies conducted on the American presidency and crisis situations. These studies have covered events like the Cuban Missile Crisis (Bostdorff, 1994; Pratt, 1970), The Gulf of Tonkin crisis (Cherwitz & Zagacki, 1986), the Dominican Republic (Bass, 1985), the Mayaguez affair (Hahn, 1990), Grenada (Bostdorff, 1994; Heisey, 1986), Somalia (Butler, 2002), and Kosovo (Paris, 2002). In these studies, scholars have focused on three issues when discussing crises: 1) defining what a crisis is; 2) classifying the different types of speeches; 3) discussing the different rhetorical strategies presidents use in managing these crises. When communication scholars focus on presidential crises, they argue that they are rhetorical constructions. That is how a president describes the crisis, creates our understanding of the situation as a crisis or not (Kuypers, 2006). The reason for that is that “[I]nternational crises often appear suddenly, are usually complex, and do not allow easy interpretation by the public. Presidential statements act to create a stable context from which to interpret the crisis” (Kuypers, 2006, p. 4 - 5).

In other words, presidential crisis rhetoric serves as a means of educating the American public about the complex situations that arise in everyday life. Studies have found that presidential crisis speeches contain three defining characteristics: 1) the president’s assertion of possession of “New Facts” about a situation that define it as a crisis, 2) a melodramatic comparison between the pure motives of the United States and the evil motives of the enemy, and 3) a shifting of the issue, including the policy for which the President desires support, from a practical, political context to a moral, ethical context (Dow, 1989).

A second issue in the literature regarding crisis rhetoric has been the different classification schemes. Cherwitz and Zagacki (1986) divided crisis speeches into two types of discourse: consummatory and justificatory. Consummatory rhetoric is present when the president’s discourse is the only official reply made by the American government and “endeavor[s] to show the people of the U.S., as well as the world community, that enemy attacks were hostile and unprovoked, and that despite such aggression the U.S. will not respond, for to do so would justify violence” (p. 309). Justificatory rhetoric is present “where presidential discourse was from the very beginning part of a larger, overt military retaliation taken by the government of the U.S.” (p. 308) and “focus[es] on explanation and rationalization of military retaliation” (p. 309). Dow (1989) argued that crisis situations can be put into two categories: epideictic and deliberative. Dow argues that “rhetoric which responds to critical events is characterized by epideictic strategies that function to allow the audience to reach a communal understanding of the events which have occurred” (p. 297). Deliberative rhetorical strategy serves the purpose of gaining approval for a specific presidential action, which replaces the approval of Congress, which would be needed for the president to make a formal declaration of war (Dow, 1989).

Perhaps, the biggest focus within the scholarship concerning crisis rhetoric has been on the different rhetorical strategies that scholars have explored. Paris (2002) demonstrated that President Clinton got involved in a metaphor war with the Congress over justifying the intervention into Kosovo. In analyzing the rhetoric of Presidents Johnson, Eisenhower, and Reagan, as it related to the Dominican Republic, Lebanon, and Grenada, Proctor (1987) advocated that these presidents asserted that the United States needed to intervene to quell a chaotic scene, lest
the violence spread elsewhere. Bostdorff (1994) maintained that President Reagan used myths of mission and manifest destiny when justifying the military incursion into Grenada. A common thread through all these studies is that they argue that presidential crisis rhetoric is structured by a savage/civilization binary. Bostdorff (1994) observed that crisis situations are “conducive to hero vs. villain polarizations” (p. 7). Windt (1973) asserted that the establishment of good versus evil is a basic line of argument within crisis rhetoric. Cherwitz and Zagacki (1986) argue that both types of crisis rhetoric they study, consummatory and justificatory, seek to identify and blame adversaries while at the same time commending U.S. action (see also Bass, 1985; Cherwitz, 1980; Heisey, 1986). In other words, presidents define the enemy in terms that make it appear as if the enemy is irrational, barbaric, and diabolical. By contrast, the president will use language that portrays U.S. action as heroic and righteous with the goal of protecting democracy and innocent lives.

This review of literature reveals varying conclusions about presidential crisis rhetoric. First, we can conclude that scholarship on presidential crisis rhetoric focuses on acts involving military intervention. Second, presidential crisis rhetoric are rhetorical constructions that serve as a means for the American public to understand complex and intricate international problems. Third, there are different classification systems for crisis rhetoric. Finally, presidential crisis rhetoric for military intervention shares some common rhetorical strategies, namely that they justify a call to arms through a savage/civilization binary. While the conclusions generated here are important, they also point to some significant gaps in the crisis literature. First and foremost, there is little to no scholarship on presidential crisis rhetoric relating to how presidents deal with economic crises at home or abroad. Additionally, after reading Clinton's speeches on the crisis situation with Mexico, it became apparent that Clinton was not using a savage/civilization binary when advocating solutions to the Mexican peso crisis. This led me to ultimately conclude that the current scholarship does not provide a sufficient theoretical guide in analyzing President Clinton's rhetoric concerning the Mexican Peso Crisis. To that end, my analysis approaches studying Clinton's discourse in a different manner. Specifically, I use a framing analysis to demonstrate the dominant strategies the president used to navigate this crisis. In the following section, I expand on what a framing analysis is and the data for this particular study.

Methodology
The methodology for this research is a qualitative textual analysis; in particular, this study utilizes a framing analysis to look at the collected data. A frame is a “central organizing idea for making sense of relevant events and suggesting what is at issue” (Kuypers, 2006, p. 7). The process of framing, as Entman (2003) described it, is the selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution. Frames are powerful because they help “induce us to filter our perceptions of the world in particular ways, essentially making some aspects of our multidimensional reality more noticeable than other aspects” (Kuypers, 2006, p. 186). Framing provides the means to make some information more salient than others. They work to highlight some features of reality, while drawing our attention away from others (Entman, 1993; Gandy & Li, 2005; Kuypers, 2006). For the general public, framing can shape the ways in which the general public can understand various problems. Considering that the president is the most important actor in American foreign policy and that the American public has little to no understanding of international affairs, the president's rhetoric shapes the ways in which the general public understands events outside the United States. The way the president frames international events, including crises, affects how the public will view those events.

Framing, as a method, provides the critic with the ability to describe the power of a particular text (Entman, 1993). A framing analysis entails the critic analyzing the whole text searching within the discourse to find the dominant frames used. Critics look for key words, metaphors, concepts, symbols, and visual images, to determine the dominant frames (Entman, 1991). The critic then takes these keywords and reassembles them in to larger thematic frames, which reveal the dominant frames used by the rhetor to construct the reality of the situation. In this analysis, I will be examining a variety of public documents to determine the dominant frames Clinton used to construct his version of reality regarding the Mexican peso crisis and analyzing why that construction was considered a success.

The data for this research is all of the public statements made by Clinton over a two month period from January 1995 to March 1995. All of those documents are accessible through The Public Papers of the President, which can be found through accessing The American Presidency Project, an online database run by the University of California, Santa Barbara that has every public statement made by every president since 1789. A preliminary investigation of this database, using a key word search of “Mexico” and “economy” over this two month period, revealed over forty statements that may be relevant to this project. Further investigation will mostly likely winnow this amount down somewhat, but there still will be plenty of data to complete this project.
The framing procedure used after the date was collected started with an initial read through to gain a broad understanding of the rhetoric; following, there was a second and third reading where I searched for keywords and important phrases within the speeches; all the data was then collected onto a data sheet where it was then gone through again and further analyzed to pull out the particular frames being used by President Clinton. From that data, it was determined that three frames main frames were used throughout Clinton's speeches: the nature of the crisis, a catalytic event, and the promotion of a solution.

Analysis
The Nature of the Crisis
Throughout the Mexican Peso Crisis, President Clinton and his foreign policy team attempted to educate the American public on the crisis to generate their support for any solutions created by the administration. The president explained that:

[T]his crisis came about because Mexico relied too heavily upon short-term foreign loans to pay for the huge upsurge in its imports from the United States and from other countries. A large amount of the debts came due at a time when, because of the nature of the debts, it caused a serious cash flow problem for Mexico, much like a family that expects to pay for a new home with the proceeds from the sale of its old house only to have the sale fall through” (1995d, ¶. 13; 1995e, ¶. 9).

Mexico's cash problems, according to Clinton, created a "short-term liquidity crisis" and a large "budget deficit" (see 1995c; 1995d; 1995e; 1995g). Additionally, as Clinton's foreign policy team noted, this liquidity crisis caused the Mexican currency, the peso, to "hit an all time low" and drove the Mexican stock market down as much as "8 percent" (1995g, ¶. 21).

In explaining the crisis to his fellow Americans, Clinton had two individual focuses. First, he upholds that the crisis is going to be a "short term" crisis and not a long-term issue. This assures the American people that this is not something they are going to have to deal with for decades to come but, rather, is something that will be over relatively quick. Next, Clinton implores the analogy of a family for two specific reasons. First, this analogy is something that really helps him to connect with the American public, whom are known to be very family oriented individuals. Second, the analogy implies that Mexico is a part of the 'American family,' a child needing to be brought in from the cold. Both of the implied meanings are meant by Clinton to draw sympathy for the Mexican economy and Mexican people.

A Catalytic Impact
Clinton framed the crisis created from Mexico’s “cash flow problem” as having a “catalytic impact” upon the Mexican, American, and global economies. We already noted some of the effects that it had on the Mexican economy. However, Clinton spent most of time discussing two larger threads of thought. The first thread running through the Catalytic Impact frame is on the effects it would have on the American economy and its leadership. In terms of the American economy, Clinton argued that the Mexican Peso crisis was important “for the sake of millions of Americans whose jobs and livelihoods are tied to Mexico’s well-being” (1995e, ¶. 3). Clinton maintained that:

Every American should understand what’s at stake and why it’s in the interest of working men and women all across our country to support Mexico. Mexico is our third largest trading partner. And already the goods and services we sell there support 700,000 American jobs. Helping Mexico remain a strong and growing market for our exports is vital to our ability to help create the kind of high-paying jobs that give people their shot at the American dream.” (1995e, ¶. 5)

Clinton further spoke of the crisis as a “danger to the economic future of the United States” (1995d, ¶. 6) because of our close ties to the Mexican economy, with so many American jobs being completely dependent on a “stable and prosperous” Mexico (1995c, ¶. 1). Therefore, Clinton stated that it was in “America’s economic and strategic interest that Mexico succeeds.” (1995b, ¶. 3) Clinton spoke further of the crisis as a “test of American leadership.” (1995g, ¶. 18) He maintained that everything happening in Mexico was “America’s problem” (1995h, ¶. 4) and that it is, therefore, our job to take action and help to “give the Mexican people renewed hope for a more secure future.” (1995h, ¶. 4)

Another of Clinton’s focuses was on the effect that the crisis in Mexico could have on the remainder of the world’s economies, particularly in Latin America. Clinton described the effect that the crisis could have on these economies as analogues of a virus that could “spread to other emerging countries in Latin America and in Asia” (1995d, ¶. 10). Failure to act, Clinton said, would have “grave consequences for Mexico, for Latin America, for the entire developing world” (1995f, ¶. 17). The reason for this, Clinton said, is that Mexico acts as a sort of “bellwether for the rest of Latin America and developing countries throughout the world” (1995a, ¶. 26).

Promoting a Solution
The effect that the Mexican Peso crisis would have had on America and the rest of the world lead Clinton to promote a
solution for the crisis. Clinton assured the American people that the loan mechanism that he and his staff wanted to put into place was not a loan but a guarantee. He stated that:

These guarantees, it’s important to note, are not foreign aid. They are not a gift. They are not a bailout. They are not United States Government loans. They will not affect our current budget situation. Rather they are the equivalent of co-signing a note, a note that Mexico can use to borrow money on its own account. (see 1995d, ¶. 15; 1995e, ¶. 10)

In this respect, Clinton is trying to show that America is merely going to act as an aid to Mexico and that after obtaining the aid Mexico will end out handling the situation on its own. However, this contradicts a previous statement by Clinton where he made Mexico seem like a child that needed to be brought in from the cold and cared for. These statements draw a line in the discourse, but are present in many other issues in America's history with Mexico where it always seems that while the United States government wants to aid Mexico, at the same time it wants Mexico to fend for itself.

The next important thread that Clinton uses in promoting a solution to the Mexican Peso crisis is assuring the American people that using this form of loan mechanism are not risky for the United States. Clinton emphasized that the United States has had “loan mechanisms in place with Mexico since 1941” and that “Mexico has always made good on its obligations” (1995d, ¶. 16). While promoting a solution for this crisis, Clinton reiterated the point that Mexico had made “extraordinary progress” in recent years and had “erased a budget deficit” (1995d, ¶. 11). Clinton effectively used this past trust that the United States has with Mexico and the progress that the country had been making previous to the crisis to help reassure the American people that aiding Mexico was not a risky move for the United States. Further, he reassured the American people by promising that “Mexico will make an advance payment to us, like an insurance premium. No guarantees will be issued until we are satisfied that Mexico can provide the assured means of repayment” (1995d, ¶. 15).

Conclusions

In this study, I utilized a framing analysis to discover how Clinton managed the Mexican Peso Crisis. In my analysis it was discovered that Clinton used three basic frames: the nature of the crisis, a catalytic impact, and promoting a solution. When discussing the nature of the crisis, Clinton had two main focuses. First, he related that the crisis was a “short-term” issue and not a long term problem. Second, Clinton implored the analogy of a family within his rhetoric. When discussing the catalytic impact Clinton primarily focused on the effect that it would have on the American economy, as well as the effect that it would have on Latin America and the rest of the world economies. When promoting a solution, Clinton first detailed the loan mechanism that he and his staff wanted to put into place. Finally, Clinton reassured the American people that aiding Mexico was not going to be risky for the American economy by maintaining the United States has had a long standing loan mechanism in place with Mexico and that Mexico has always repaid their debts.

What we see from this analysis is that while Clinton's rhetoric on the Mexican Peso crisis shares many of the characterizations already given to crisis rhetoric by scholars, the rhetoric also has several differences. For example, while Clinton's rhetoric was a part of the United States action during the crisis there was no justification of military action by the government along with it. If you'd recall, there was also no savage/civilization binary found within Clinton’s speeches, which points to an absence of an ‘enemy’ or ‘villain’ within rhetoric. However, Bostdorff and O’Rourke (1997) found that only domestic crises do not contain villains. They maintained that “domestic crises do not readily provide a tangible villain against which the nation can unite” (1997, p. 346). Further, while some of Clinton's rhetoric on the Mexican Peso Crisis could be classified as ‘deliberative’ (as he is seeking approval by Congress to take action) in the end, Clinton took action on his own and, therefore, was no longer seeking approval. This leaves the remainder of Clinton's rhetoric on the subject without a clear classification, as set by Bonnie Dow. From this we can conclude that we need a different way in which to look at economic crisis rhetoric because what we would typically find in other forms of crisis rhetoric is not present here.

In comparing this study’s findings with Bostdorff and O’Rourke’s study of President Kennedy and the U.S. Steel Crisis of 1962 I found that there were many similarities in the way that both presidents handled their crises. Like Clinton, Kennedy first explained what the problem was to the American people before detailing what the effects of this problem would be if it were not to be resolved quickly and finally offering a solution for the crisis. It is for this reason that I would propose that this study be used as a model for future studies dealing with economic crisis rhetoric.

References


Knowledge and Skepticism in Descartes’ Meditations

SCOTT CAMPBELL

My research is centered on the arguments of Rene Descartes, a 17th Century philosopher, in his work The Meditations. The Meditations is composed of six entries, which are six meditations, written in form of narration. His narrative takes form in an intricately composed piece of writing, a clever argument presented through a precise and fascinating procedure. However, the artful fashion in which he conveys his method is far from an immaculately composed calculation which Descartes leads one to believe. In this paper I will present Descartes’ procedural destruction and following reassembly of the external world and his proposed discovery of the proper foundation of the sciences. I shall then discuss the unmistakable faults in his argument, presenting counter-arguments posed by Descartes’ contemporaries and further offering my own objections. I will conclude by presenting a theoretical epistemology found beneath the surface of the glaring errors which Descartes ostensibly failed to recognize.

I. Methodological Doubt

Descartes chooses to exercise some fantasy in his narrative, initially claiming that nothing exists. Why is it that Descartes’ Meditations, composed of such outlandish claims, remain a prominent piece of philosophical work? It is the riddle, comprised of absurd notions and bearing esoteric consequences which Descartes presents to begin his inquiries to understand how we know, what we know. These notions impel Descartes’ complete upheaval of all knowledge and any possibility of our having knowledge. He totally negates all of existence, and does so with just three propositions: the refutation of the senses, “the dream regress”, and the supposed existence of an “evil deceiver”. Assuming total non-existence is hardly a conventional sentiment, and not one which any person would readily embrace. However, he so guilefully guides one through his thinking that it almost seems possible. Nonetheless, the idea that nothing exists is absurd. Reason would indicate that it should be a relatively simple task to dismiss the absurd; but this is not the case. The past four hundred years of philosophy has failed to offer a solution, and thus it has become a thorn in the side of philosophy to once and for all rid ourselves of this conundrum. I will begin by elucidating the ways in which Descartes brings all of existence into doubt.

Descartes’ radical external world skepticism is an essential element in his work. With complete destruction of all knowledge and existence, he clears...
Thus, he must exist as the necessary subject of these operations. Deception requires a deceived, and dreams, require a dreamer; he first stipulates his own existence with the famous revelation of ‘Cogito Ergo Sum’ or; I think, therefore I am. This proposition evades the doubt of the senses, the dream regress, and even the evil deceiver. He must exist, for thought requires a thinker, deception requires a deceived, and dreams, require a dreamer; thus, he must exist as the necessary subject of these operations. Moreover, he exists as a thinking thing, since he discovers thought to be his essence. He can conceptualize himself as removed from a body, or any form of extended thing, but in no way can he separate himself from his thought. Descartes claims there is nothing he perceives with greater clarity than his own thought, which he realizes through the light of nature, an incorrigible faculty he comes to deem as clear and distinct perception. He explains this revelation,

But do I not therefore also know what is required for me to be certain of anything? Surely in this first instance of knowledge, there is nothing but a certain clear and distinct perception of what I affirm [...] I now seem able to posit everything I clearly and distinctly perceive to be true. (Descartes: p.72 Med III)

This light of nature, or clear and distinct perception, is his second revelation of truth- that is, his mechanism for recognizing truth.

Utilizing this certainty of his own existence, and this instrument of recognizing truth, he moves to investigate what an idea is. Since he is a thinking thing, he further wonders what the cause of ideas is. To uncover this, he must first understand causality. He claims that, something may never arise from nothing; and further, that whatever is in an effect, must be eminently present in the cause. Therefore, something of greater perfection, cannot be caused by something of less perfection; and thus likewise, an idea may never come from nothing. Descartes then understands that there must be an idea that is capable of producing all the ideas he has, or may ever, have. This idea, in his calculation, must be God, a being of supreme perfection. He derives this conclusion from that fact that nothing present in him is able to even resemble the perfection which inheres to idea of the perfect being. He then concludes that this idea cannot originate in himself, but further must emanate from something external; that is, from the actual existence of the perfect being, God. Upon this perfect and thus necessarily non-deceiving God, Descartes then validates clear and distinct perception as an incorrigible faculty. Still Descartes maintains, and rightly so, that the senses must not be trusted at face value. That is, they are not guaranteed to provide actual impressions of reality. Nevertheless, he also retracts that they are to be completely rejected. He moves on to insist that sensory input must be integrated through reason to be validated and verified as certain. He illustrates this notions in The Meditations with an example where he depicts seeing people walking from afar, but all one can see is moving hats and coats; however, we know through reason that these are in fact people. Descartes thus posits that the senses do have value in ascertaining truth insofar as they are employed in corroboration with clear and distinct perception. Since God,

The ancient skeptics employed the argument of the dream regress by asking how one knows that what one dreams is not actual reality, and conversely; how it is that one knows what we perceive as our waking hours not to be the fictitious. The ancient skeptics were not seeking to know anything, and in fact, they believed nothing could be known; so they committed themselves to a total suspension of judgment. This argument was one of many they employed to reject claims of knowledge. Descartes, on the other hand, places his own twist on the ancient tactic and employs the argument to eventually gain certainty. He asks if we may ever know we are not dreaming. He argues that since everything we experience in reality may be experienced identically in a dream, there is no way to discern whether or not we are dreaming. However this still leaves existence intact, because the elements of dreams resemble the elements of the actual world.

To call reality into doubt, Descartes then supposes the existence of an all powerful, evil deceiver, a supposition which he asserts he cannot know to be false. Descartes supposes that this deceiver has tricked him in every moment of what he perceived to be life, such that, every feeling and every experience Descartes ever had was merely a sequence synthesized by the deceiver. Thus he renders himself unto a state of complete uncertainty and denial of all known existence, since he cannot be certain that this deceiver does not exist. Now let us consider Descartes’ recovery from this devastating state of non-existence.

II. Resurrecting Reality
Descartes reestablishes existence in a progression narrated through The Meditations. He exits the void of non-existence as he first stipulates his own existence with the famous revelation of “Cogito Ergo Sum” or; I think, therefore I am. This proposition evades the doubt of the senses, the dream regress, and even the evil deceiver. He must exist, for thought requires a thinker, deception requires a deceived, and dreams, require a dreamer; thus, he must exist as the necessary subject of these operations.

The table to build his own epistemology. He reaches this radical point of skepticism by employing three propositions of doubt in his quest for a certain foundation of the sciences. He begins by evaluating what he thinks he knows. He states he must reject that which is even a potential item of doubt. Thus, to dismantle his false beliefs, he must undercut the foundations which support them. His first move toward complete skepticism is a stipulation which asserts that we must not trust that which has deceived us even once. Therefore, he continues, since we have been deceived by our senses we must not trust them. However, this only applies in ambiguous circumstances, so he calls upon an argument similar to one employed by the ancient skeptics, the dream regress.

This ancient tactic and employs the argument to eventually gain certainty. He asks if we may ever know we are not dreaming. Moreover, he exists as a thinking thing, since he discovers thought to be his essence. He can conceptualize himself as removed from a body, or any form of extended thing, but in no way can he separate himself from his thought. Descartes claims there is nothing he perceives with greater clarity than his own thought, which he realizes through the light of nature, an incorrigible faculty he comes to deem as clear and distinct perception. He explains this revelation,

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by Descartes' definition, cannot be a deceiver, God would not bestow upon him such deceptive resources. Now with the senses corroborated by reason, and the veracity of which verified by the integrity of God, Descartes validates the existence of the external world, setting the proper foundation for the sciences.

III. Critical Response from Descartes' Contemporaries

Descartes solves his riddle with the necessary existence of a benevolent God. This God, he claims, is the foundation for all knowledge. However, assertions made throughout The Meditations in establishing God's existence are dubiously conspicuous. If it is the case that the argument as whole can be dissected and shown to be erroneous, or at least miscalculated, then it would seem it should be more than possible to dissolve the initial doubts which provoke these claims. However, such a task is anything but simple. Unfortunately the refutation of Descartes' reassembly of the world, in the end, leaves his three propositions of doubt (his riddle of complete external world skepticism), intact. The magnitude which these three doubts span is so immense that finding a crawl space to evade deception may take more than a life time. So it will not be the dissolution of the doubts we will consider, but the dissolution of the argument presented to solve the proposed nullification of existence.

Descartes' argument, from the cogito to the vindication of the senses is muddled with flaws. I would like to discuss a few of these elements. The first to be considered is called The Cartesian Circle. As the name implies, it is a charge against Descartes for arguing in a circle. This is a fallacious form of argument in which one employs the premise, or premises, to prove a conclusion, but then uses the conclusion to obversely justify the premise, or premises.

This fallacy couched in Descartes' prolix was exposed by Descartes' contemporaries, Antoine Arnauld and Pierre Gassendi. They were given copies of The Meditations before it was publicly circulated to respond and object--and object they did. They each presented this very issue in their Objections to The Meditations. Arnauld wrote,

I have one further worry, namely how the author avoids reasoning in a circle when he says that we are sure what we clearly and distinctly perceive is true only because God exists. But we can be sure that God exists only because we clearly and distinctly perceive this. (Arnauld: p.150)

Descartes' first step of committing this crime of argumentation occurs through instituting the proposition of clear and distinct perception, which he asserted as an incorrigible faculty in the beginning of Meditation III. He exercises this faculty as he maneuvers his way through his conceptualization of ideas. This inquiry leads him to question the modes of causality, specifically the cause of ideas. The combination of these examinations finally leads Descartes to a clear and distinct understanding of the initial cause of all ideas, a cause which necessarily exists, and that cause must be God. Yet despite having previously applied this incorrigible faculty of clear and distinct perception, Descartes proceeds to justify the veridical nature of this faculty upon God in Meditation IV. So, he uses this method to find God, despite not having proven the method to be valid. He offers no justification because initially he cannot. Instead, he asserts a rule stating that which is clearly and distinctly perceived is always true. Thus, with unjustified means, he arrives at the existence of God. Upon this conclusion he then reverts back to show clear and distinct perception to be valid based upon this new knowledge of a non-deceiving God. Here we see an unwarranted premise which invalidly proves a conclusion, followed by the unwarranted premise being justified by the invalid conclusion; this is a text book case of begging the question in circular argumentation. Hence, his triumphs over the evil deceiver and escape from the dream regress have miserably failed. He may know he exists, but that is all--if he even knows so much. Second, we should consider a quite interesting problem offered from a position of uncompromising logic. This point of view was offered by another individual who received an advance copy of the text, a Jesuit, Pierre Bourdin. Bourdin wrote to Friar Marin Mersenne, a friend of Descartes (and the man responsible for issuing these early copies of The Meditations), and said; "I have tried to treat him as courteously as possible but I have never seen a paper so full of faults" (Cottingham, Stoothoff, Murdoch: 64). He provides a few interesting points in response to Descartes' escape from the skeptical abyss through the establishment of his own existence. He argues against Descartes' claim that despite an inability to differentiate between reality and dreaming, Descartes is nonetheless clearly and distinctly aware that he is thinking in any dream; and therefore, must exist as the subject of this thought. Bourdin rejects that Descartes may have any clear and distinct perception of anything if he is dreaming. Since the act of thought which Descartes supposes, may be occurring in a dream, it is then also only a dream that this act of thought is so clearly evident. Thus, no matter how Descartes attempts to pose his clear and distinct thought in regard to the dream regress, his supposed awareness is nothing but a dream, and hence containing no reality, offering no way out of the skeptical labyrinth.

Bourdin's next point centers on Descartes' stipulation of complete skepticism, denying all existence. Since Descartes has established that nothing exists and has embraced this position, for Bourdin, that is the end of Descartes' road. He claims that
this position is intrinsically an eternal catacomb. If in the first premise nothing exists, it cannot be that anything may follow to be established as existing. Bourdin says,

Nothing exists, you do not exist; you are not thinking; you are not conscious[...].If the proposition ‘Nothing exists’ is true, then the proposition ‘You do not exist and you are not thinking’ is necessarily also true[...].you insist that the proposition ‘Nothing exists’ is true. Therefore the proposition ‘You do not exist and you are not thinking’ is also true. (Bourdin: 342)

Simply, if nothing exists, even oneself, consequently, by embracing this claim Descartes subjects himself to an inescapable nothingness. Bourdin recommends that Descartes adjust his premise to allow himself a possibility of establishing certainty of any knowledge.

Further, another critical issue may be raised in relation to Bourdin’s perspective. According to Descartes’ theory of causation, something cannot come from nothing. If he believes this to be true, and if in fact he establishes this state of endless emptiness, he cannot, according to his own theory of causality, escape this nothingness. Thus, when he does assert that he exists as a thinking thing, after the fact of his skeptical annihilation of existence, he contradicts his own metaphysics. As he would then come from nothing, which Descartes says cannot be. Therefore, he cannot be, and the cogito is lost.

IV. Proving God and a Rising Suspicion

Despite the calm elegance and natural comfort offered to the reader through the narrative, the argument formulated by Descartes is far from pristine. The flaws seem so glaring and blatant, that it leaves one with a peculiar wonder of how Descartes missed these errors. The fallacy of begging the question by circular reasoning is not any secret. It is an elementary form of fallacious argumentation and is no minor oversight. In fact, it singlehandedly undermines his entire argument. Since God is the basis for Descartes’ entire epistemology and this fallacy negates the establishment of God, this fallacy negates his entire epistemology. These errors are so grave and so evident it gives rise to suspicion; could it be that he was not sincere? Even if, somehow, Descartes did in fact overlook these factors, what may be said about his proof of God’s existence? Aside from the exhaustive lengths taken in its prose, it is shocking how feeble this proof turns out to be.

In attempting to prove God’s existence, Descartes utterly failed. I see no substantial difference between his assessment of the cause of ideas parlayed into a proof of God’s existence and that of Saint Anselm’s ontological argument as proof of God’s existence. Anselm’s argument, of the 11th century, goes (condensed) as follows:

1: God is something than which nothing greater can be thought.
2: Even a fool must admit that something than which nothing greater can be thought necessarily exists in the understanding, as this is understood upon hearing and what is understood must exist in the understanding.
3: Something that than which nothing greater can be thought cannot exist solely in the understanding.
4: Since that which exists in reality is greater than that which exists solely in the understanding.
5: But if that than which nothing greater can be thought only existed in the understanding, then something greater could be thought than that than which nothing greater can be thought.
6: But this is not possible, so that than which nothing greater can be thought must exist in reality.

Therefore: God exists. (Anselm: 415)

However, this proves nothing; there is no actual necessity. He simply posits ideas and in an entanglement of concepts and prolix, he concludes God’s existence. But all he may really say is, if God were to exist, nothing greater could be conceived. Much is the same for Descartes; if it were the case that our ideas indeed needed a corresponding actuality from which their objective reality (our mental image or concept) emanates, then God would exist. Further, and related in an even closer manner to Anselm’s argument, are the implications drawn by Descartes through stipulating the perfection of God. He claims that since God is most perfect, and that which exists has more perfection than that which is merely conceived, God therefore necessarily exists. If it were the case that Anselm’s argument had weathered the testaments of time and had truly proven the existence of God, Descartes would not have needed to prove God existed. However, since Anselm’s argument proved nothing, why did Descartes adopt such a similar line of reasoning for his own proof?

Descartes writes with such an air of confidence that deigns to identify the one true method of attaining truth and grounding knowledge. I appreciate this writing insofar as it displays a clever craft of a theoretical epistemology, but in no way can I subscribe to the actual content of his fantasy. It is undeniable that Descartes was a man of remarkable intellect, so it does not seem possible that he was unaware of these defects. However,
I do understand the mere occurrence of these mistakes does not prove anything. Nevertheless, the barefaced manner in which they appear is certainly dubious; and I find it outright suspicious. The remainder of this paper will explore ideas regarding a potential hidden agenda behind *The Meditations*.

**V. Dissimulation Theory**

The idea that Descartes had a hidden agenda in his work may be formally addressed as dissimulation theory. Louis Loeb explains, “According to dissimulation hypotheses, Descartes, in *The Meditations*, intentionally misrepresented important aspects of his philosophy” (Loeb: 243). Given the highly speculative nature of such hypotheses, there are many different views, or approaches, one might take here. I will focus on Descartes’ appeal to divine veracity as grounds for the function of clear and distinct perception (upon which Descartes would prove the existence of the external world,) as an insincere notion.

To begin, we must understand a tactical inconsistency regarding the function of the evil deceiver in *Meditation I*, contrasted with its application in *Meditation III*. In *Meditation I*, the deceiver is an instrument to raise complete doubt regarding sensory experience, and simulates the external world to seem to exist when in reality it does not. As Descartes explains,

> I will suppose [...] an evil genius, supremely powerful and clever, who has directed his entire effort at deceiving me. I will regard the heavens, the air, the earth, the colors, shapes, sounds, and all external things as nothing but the bedeviling hoaxes. (Descartes: 62)

This is a quite severe assertion pertaining to a vast range of doubt. In *Meditation III*, the deceiver, who remains intact, assumes a different application than we see in the *Meditation I*. In *Meditation III* it is not the material world in question, rather it is the deceiver’s potential ability to compromise clear and distinct perception: Descartes asserts, “I do not understand the mere occurrence of these mistakes does not prove anything. Nevertheless, the barefaced manner in which they appear is certainly dubious; and I find it outright suspicious. The remainder of this paper will explore ideas regarding a potential hidden agenda behind *The Meditations*. How is it that at this point in *Meditation III*, only with the knowledge that he exists as a thinking thing, is Descartes able to so drastically undermine the previously attributed ubiquitous force of negating existence from the evil deceiver? It seems that there is no justifiable way. Further illustrating the inconsistency of the deceiver’s application is the severity applied to the doubts in *Meditation I* which encompass even arithmetic, as Descartes says, “others sometimes make mistakes in matters that they believe they know most perfectly, may I not, in like fashion, be deceived every time I add two and three or count the sides of a square” (Descartes: 61)? Whereas in *Meditation III* (as we saw in the former quote, 70-71), this doubt is rendered “tenuous”.

One thing remains quite clear at this point; Descartes did not treat the doubts raised in *Meditation III* as seriously as he did when he initially called them into the picture in *Meditation I*. As Loeb writes, “Descartes constructs the hypothesis of *Meditation III* in a way that enables him to minimize the doubt it generates, that is, to treat the doubt as slight in contrast to the doubt of *Meditation I*” (Loeb: 253). This indicates that if Descartes was insincere regarding the doubts of *Meditation III*, what must follow is an inspection regarding whether or not Descartes was sincere regarding these doubts in the first instance. However, regardless of his sincerity in *Meditation I*, due to the inconsistent application of these doubts, he therefore undermines his solutions to these problems; which are his proof of the existence of God, his appeal divine veracity—-but moreover, the epistemological position placed upon God. For if the doubt he is answering is not taken seriously, then neither should its solution; or, if the doubt is serious, but must be minimized so to be toppled, the solution is rendered worthless. Conclusively, if the argument is inconsistent, it is invalid and we must not accept Descartes’ proof of God or anything which he asserts as contingent upon it. With these elements withdrawn, is there an epistemological position we may extract from Descartes’ work?

Henceforth we shall regard God as a dispensable element of Descartes’ epistemology presented in *The Meditations*. Now we must consider the role of *Meditation I*, presenting complete external world skepticism. The onset of these doubts are set forth most sincerely by Descartes; or if not, to at least be taken seriously. They ring the bells of the ancient skeptics, preaching “*epoche*”, employing a transposed “*isothenia*” which shall plague any form of Philosophy; including the Aristotelian. However Descartes is in no way a classic skeptic, he has birthed a new, modern form of skepticism. Descartes’ skepticism reveals his hidden agenda, so whether or not he was fully sincere in entertaining the idea of the evil deceiver; he fully intended that we should. For his reduction of knowledge in itself is a cunning act, as it is assembled to reflect, or “to
set the stage”, for the introduction of his metaphysics; that is, without warrant Descartes induces an epistemological crisis in specific relation to his theory. As Michael Williams claims, “But Descartes does not acknowledge the theoretical considerations that mandate this reduction of skepticism to a theoretical problem in epistemology. Rather, he represents the reduction as a condition of making his project practicable” (Williams: 124). This subvert introduction is seen progressively through the presentation of doubts in Meditation I, as he immediately attacks the senses, though they are not fully dispelled since the concessions made against them only apply to ambiguous instances. To completely nullify the senses, and further, our ability to differentiate reality from what is fiction, he summons the dream regress. Finally, he nullifies reality itself with the evil deceiver. However that, which remains, even with no sense of reality, is the mind. This is the real revelation procured through this procedure, and the arrival at this condition was not an innocent conclusion which Descartes realized through pure introspection. Williams explains, “We see, then, that the progressive doubt of the Meditations is informed throughout Descartes’ distinctive skeptical problems, and the metaphysical framework that makes it possible to raise them are introduced together” (Williams:129).

It is most evident that Descartes insists the senses take a back seat to the intellect. The intellect, for Descartes, is the foundation of knowledge. He poses what he believes to be an indelible presentation that the intellect, or faculties of reason, is epistemologically prior to the senses. That is, as Loeb suggests, from The Meditations one might extract, “the conception of a hierarchy of cognitive faculties” (Loeb: 254). This is to say, there is a foundationalist approach employed by Descartes in The Meditations that is not built upon God. The Meditations established all truth upon the perfection of God, deeming God as most basic. However, as we observe through the method of doubt, God itself is lost as nothing exists. Critically, and of utmost importance, what is known before God as Descartes was confronted with the supposition of an evil deceiver, is the fact that Descartes himself exists; that is, the cogito. This is the crucial point of divergence from what Descartes presents at face value, and what is hypothesized in this theory of dissimulation. The most fundamental element to his position is the assertion; I think, therefore I am; this piece of knowledge is the most epistemologically basic, not God. Therefore, it is the mind that grounds the “pyramid” of knowledge without the validation of God. Descartes questions in the beginning of Meditation III, I now seem able to posit everything I clearly and distinctly perceive to be true. (Descartes: 70)

Again, we are introduced to the essential mechanism of ascertaining truth, prior to God. This was, however, invalid in the literal context of The Meditations, but as we’ve dismissed the role of the supreme being, clear and distinct perception fits comfortably as the intellectual foundation which prescribes our affirmation of beliefs. Descartes expounds on this notion when he speaks about “the light of nature,” a notion I take this to be synonymous with clear and distinct perception (in a quite poetic way), describing the function of our mind in its purest form. As Descartes characterizes, “There is [...] no other faculty that I can trust as much as this light and which could teach that these things are not true” (Descartes: 72). Here we have a notion of an incorrigible substratum upon which we may employ the formulation of belief. As Loeb writes, “The claim that reason is epistemologically basic, and hence epistemologically prior to sense-perception in particular, is not itself deduced as a consequence of Divine veracity” (Loeb: 257). Hence our ability to reason is the mode of which all these faculties and sensations will be filtered unto the light of nature.

It is important to consider the process of understanding Descartes imposes upon not only as to further illuminate the structure of our gaining knowledge but to further disavow the Academics. Descartes claims that our errors are “a privation or a lack of some knowledge that somehow ought to be in me” (Descartes: 82). He further asserts that errors occur as a result of our ability to freely choose in action or belief. That is, our free choice runs awry as we apply fallible resources of knowledge in adjudicating potential choices. This is a misguided and perfidious procedure which leads one to misjudge, and elect false beliefs. This process of vindicating a given proposition, or choice, is judgment. Our judgments are the process toward of understanding. Our understanding is the process of our knowledge. Therefore, it would follow from this line of thought why Descartes made such a grandiose stipulation which guaranteed veridical inveteracy; “for as often as I restrain my will when I make judgments, so that it extends only to those matters that the intellect clearly and distinctly discloses to it, it plainly cannot happen that I err” (Descartes: 87). Therefore clear and distinct perception, the pure function of mind (the light of nature), is the key to knowledge. These intellectual epiphanies occur as a result of the properly functioning, interacting, and ordered set of cognitive faculties. That is, the application of proper reasoning in regard to matters of judgment. It is the role of reason to adjudicate that which is understood and that which is confused. For reason can discriminate, or correct, any entity with which it is presented. Therefore, and most importantly, reason can defy and correct that which is known
by the senses, thus, conclusively showing that the senses are not epistemologically prior to the mind.

V. Conclusion
Thus, Descartes does not wish to establish external world skepticism. Rather, he wishes to ground the senses and knowledge of external existence upon the function of the epistemologically prior faculties of the intellect. He buttresses this intention upon the stipulation that reason cogitates all the sensory input we receive. However, and undeniably so, an immense amount of what we know, and who we are, and become, is predicated by everything we externally experience. For Descartes, this is good and well. Nonetheless, the basis of judging and understanding our experiences is not focally through the senses—but through the mind. Conclusively, The Meditations suggest that knowledge ferments through the intellect, whether or not God exists.

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Autism (sometimes called “classical autism”) is the most common condition in a group of developmental disorders known as the autism spectrum disorders (ASDs) and is characterized by impaired social interaction, problems with verbal and nonverbal communication, and unusual, repetitive, or severely limited activities and interests (NINDS, NIH, 2009). Other ASDs include Asperger Syndrome, Rett Syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder not otherwise specified (usually referred to as PDD-NOS). Experts estimate that three to six children out of every 1,000 will have autism. Males are four times more likely to have autism than females. (NINDS, NIH, 2009)

The rise in the rate of the diagnosis of Autism Spectrum Disorders makes it essential for social workers to gain insight into its impact on families including the siblings. Limitations in social interaction and empathy in a child with autism can have both positive and negative impacts on the siblings of these children. So what coping strategies do these siblings use to manage their reactions to the challenges presented by their autistic sibling? I interviewed seven siblings of autistic children to contribute to the knowledge that helps social workers better serve these families by gaining access into the siblings’ concerns and how they manage those concerns.

Background Research
While deficits in social interactions are a key issue in a child with an ASD, some studies found that a sibling relationship provides a learning environment for the development of such skills in the child with ASD. One of these studies found that children with ASD demonstrated skills in interaction with their siblings which is rarely reported with their peers and noted that an ASD child may gain positive outcomes regarding pro-social behaviors when having a typically developing sibling (Knott, Lewis, & Williams, 2007). This research by Knott, Lewis, and Williams (2007) studied six ASD sibling dyads, 10 Down’s Syndrome dyads, and utilized existing literature on typically developing sibling dyads. There has also been some research on the impact on typically developing siblings when having an ASD sibling.

Research by Dawson, Fein, Greenson, Meltzoff, and Toth (2007) noted that siblings, ages 18-27 months, of a child with ASD had lower mean receptive language, adaptive behavior, and social communication skills and used fewer
words, gestures, and responsive social smiles than comparison children without a sibling with ASD. When compared with a normative sample, siblings of children with ASD were rated as having fewer hyperactivity problems but more behavior problems (Hastings, 2007). Research by Macks and Reeve (2007) indicated that the presence of a child with ASD appears to have an unfavorable impact on the non-disabled sibling as demographic risk factors increase. The demographics cited as placing a child more at risk for social, emotional, and scholastic difficulties were being a male, having only one sibling, coming from a family with low socioeconomic status, and being older than the child with ASD (Macks & Reeves, 2007). Research by Orsmond and Seltzer (2007) on the effects of siblings on adult life revealed that siblings of adults with ASD had less contact with their brother or sister, reported lower levels of positive affect in the relationship, and felt more pessimistic about their brother or sister's future. It appears that as demographic risk factors increase the sibling of a child with ASD experiences more emotional and psychological stressors.

Since relationships are based on reciprocal interactions and children with ASD are typically lacking in this area, one might wonder how siblings adjust to this one way relationship. In examining the coping strategies used by siblings of children with autism, emotion-focused techniques were more often used than problem-focused techniques (Cuskelly & Ross 2006). Coping strategies refer to the specific efforts, both behavioral and psychological, that people employ to master, tolerate, reduce, or minimize stressful events. Two general coping strategies have been defined: problem-solving strategies are efforts to do something active to alleviate stressful circumstances and emotion-focused coping strategies involve efforts to regulate the emotional consequences of stressful or potential stressful events. While most people utilize both coping strategies dependent on the event or situation, often times problem-solving techniques are thought to be the healthier of the two. Coping strategies are often measured quantitatively and with pre-determined syndrome-specific behaviors in mind, however, often in such studies, the siblings fill out scales and have been asked questions that point out behaviors associated with a child with an ASD such as; “What do you do when your brother/sister is being aggressive?” The reality is that the questions asked of the siblings are often based on underlying expectations that are behavior specific for a child with an ASD. Given the uniqueness of the diagnosis, I wondered whether the direction of these questions captured the siblings’ perceptions and worries. This study didn’t provide a “scale” or point out the characteristically negative behaviors of the disabled sibling and how the subjects cope with those; I asked the sibling what they worry about and how they manage those worries. I suspected the siblings not only worry about syndrome-specific behaviors but also adult-based concerns.

Methodology
This study was qualitative in nature with the aim of better understanding the concerns of siblings of children with an ASD and their coping strategies when referencing their ASD sibling. The study was exploratory and interviews were conducted to explore the experiences of being a sibling of a child with an ASD. Convenience sampling was used. Letters describing the study were mailed to area Autism Resource Centers and follow-up phone calls with these agencies followed. Announcements about my research project were produced and emailed to several of the agencies to facilitate the process given the constraints the agencies may have with HIPAA laws relative to reaching out to potential subjects/families. Several agencies generously offered to post a flyer or included my information in an e-bulletin or newsletter.

Sample
All of the siblings that participated had received my study information from a Greater Boston area Autism Resource Center’s newsletter or e-bulletin. In all cases except one, the mother was the initial contact. One of the participants (a 17 yr. old) contacted me directly. Of the seven participants, six were female and one was a male. All of their disabled siblings were males between the ages of 8 – 17. Four of the participants were younger than their disabled sibling, 2 were older, and one was a twin.

The participants’ ages ranged from 12 – 18. Six face-to-face interviews were conducted and one interview was conducted via email correspondence. I did not confirm any diagnosis but relied strictly on the parents’ or participants’ definition of their child/sibling from initial interactions; five noted Autism, one stated Aspergers, and one stated PDD-NOS. I received 10 other inquiries from parents; however, seven of the siblings were too young for the study, one sibling was too old, and in two cases the parent thought it was a good idea but the sibling did not want to participate.

Prior to the interview, the parent and participant signed an Informed Consent and an Assent form after my verbal explanation of the project including the use of a digital recorder, the sibling assurance of confidentiality, descriptions of any known risks and potential benefits, and contact information for the people involved with the study.
Interview Process
The interviews were conducted at the participant’s choice of time and location. The interviews lasted an average of thirty minutes and consisted of several introductory questions aimed at getting to know the subject and learning about their sibling with an ASD. In all cases, with the exception of the one sibling who contacted me directly, just as much time was spent in discussion or interactions with the parent/guardian regarding the study and arranging a time and place that worked for the family. Six of the interviews were conducted in public spaces such as a fast food restaurant, a coffee shop, a mall, and one summer program attended by the subject.

The subjects were first asked demographic questions regarding their age, their sibling’s age, and how many brothers or sisters they had. The subjects were then asked to describe their sibling and were asked what it is like to grow up with someone with autism. The subjects were then asked if they ever worried about their sibling and, if appropriate, what they worried about and what they did when they worried about those concerns. Finally, the subjects were asked how they envisioned their own future and how they envisioned their sibling’s future. The questions were as follows:

- How old are you?
- How many brothers/sisters do you have?
- How old are they?
- How old is your autistic brother/sister?
- Can you describe your autistic brother/sister for me?
- What is it like to live with someone with autism?
- Do you worry about your brother/sister?
- When you worry about (………..), what do you do?
- When you worry about (………..), do you talk to anyone?
- How do you see your future?
- Do you ever think about (name of sibling)’s future?
- Do you think I should know anything else about you and what you worry about with (name of sibling)?

Findings and Discussion
When the subjects were asked to describe their sibling, the subjects responded in terms of their sibling’s social vulnerabilities or their sibling’s behavior. As one subject described his/her sibling “He hardly knows what to say when put into a social situation.” Another described his/her sibling this way “Everywhere we go people can tell he’s different. He doesn’t respond to people or interact with people. If he is angry, he’ll stop wherever he is and just sit. He stims a lot too.” Stimming is a form of self-stimulation and, often among autistic people; this would refer to fixating on a comforting thing or action (such as rocking or humming). Another subject mentioned that his/her sibling “gets made fun of”. The subjects elaborated on their descriptions and, at times, recalled a specific event or informed me of the behaviors characteristic of their diagnosed sibling. All the subjects offered me great insight about their sibling; their descriptions showcased their awareness and understanding of their family member and their family dynamics.

After the subjects’ descriptions of the siblings were complete, I asked the subjects what it like was to live with someone with autism. One subject reminded me that her sibling was “only home on Sundays” but later in the interview mentioned that “even though I’m not with him all the time, one of my favorite things to do is watch him when he is home.” When asked what this subject liked to watch, the subject elaborated on his/her ASD sibling’s routine of twirling a sock stuffed with items around when he was happy. The rest of the responses indicated favorable assessments of the subjects and included; “Life with (name of sibling) is a blessing mostly and a daily reminder of how lucky I am”, or another respondent that simply stated “it’s normal for me”, and still another, “sometimes he’s a pain but he helps me a lot too – he knows a lot about computers”. Mostly, the answers reflected the subject’s admiration towards their sibling and, at times, how inspirational their effected sibling has been in their lives; inspiring the subject to be active members of various autism advocacy groups, support groups, or research initiatives.

All of the subjects indicated that they did worry about their sibling; one of the subjects responded “yes – all the time” and another, “definitely, usually when he’s out and about”. When categorizing the responses to what the subjects worried about; social concerns and harmful behaviors were the two categories in which all responses could be coded. Social concerns included social limitations (a key characteristic of autism) as well as social vulnerabilities (i.e. “he get’s teased”). Harmful behaviors included to the sibling risk of harming himself or harming others.

The social concerns the subjects reported can be reflected better in their own responses which included a response referring to the subjects 16 year old brother “When he’s out on his own I don’t know how he’s going to do. He’ll have a hard time getting a job.” Another respondent claimed “I worry when he’s not with the family and when he is alone; what he’ll say to people or how people will react to him.” While one subject praised her younger sibling’s attitude and personality, she worried that he might not find any friends. Still another responded “Yes,
I worry. I feel bad for him because he is different and people don't like him”.

Two of the subjects responded with harmful behavior concerns. One subject said “He’s tall and bigger than everyone (in the family) and sometimes he’s hard to control. I’m afraid he'll hurt mom because she’s around the most.” This subject’s sibling was earlier referred to as low-functioning and residing in a residential facility. This subject also had concerns about hurting himself because “others (referring to the residential program) might not understand him and sometimes he’ll just run in the street or something”. The second subject worried about his/her sibling’s harmful behavior to others. “He can’t control his anger and he’ll throw stuff and swear…I worry that if he’s at someone else’s house, he'll do something to hurt others but he doesn’t mean it.”

I began the research wondering what siblings of children with autism worried about and how they handled those worries. My next question asked the subjects how they handled the worries they had just confided to me. In response to social concerns the siblings had concrete task oriented replies such as “I facilitate his conversations with other children his age” or “I try to instruct him if something new comes up.” as well as “I talk to him (the sibling) about it and ask him what he thinks.” The respondents appeared to use problem-focused coping when addressing the worry they had expressed to me.

In addressing harmful behaviors one of the two subjects responded, “We (referring to the family) constantly tell him not to do those things. We have to be patient.” The second subject who expressed worry about harmful behaviors admitted “I can’t do anything. I just get dad because he’s the only one who can do anything.” Again, in responses to what the subject worried about and how they handled those worries, these two responses also suggest a more problem-focused technique that is action oriented (even if in the slightest way or having to rely on other family members for support). While the literature might suggest emotion-focused coping strategies predominate among siblings of children with autism, when asked about a behavior-specific question, this small research sample expressed problem focused coping techniques when addressing the concerns reported by them; social concerns and harmful behaviors.

Since my literature review on the older siblings of children with autism showed that siblings of children with autism are less likely involved in their sibling’s lives as they age, I wondered if younger siblings ever considered their autistic sibling’s future. I asked these siblings 1) how they envisioned their own future and 2) how they envisioned their sibling’s future. When asked about their own future five of the respondents shared their work, school, or career aspirations while two of the respondents included plans for their autistic sibling as part of their own futures. For example, one respondent who is younger than his/her autistic sibling said “I’ll have a good job to be able to take care of (names autistic sibling)” and the other said of his/her severe autistic sibling “I plan on taking care of my brother because he can only stay at (names residential facility) until he is 22 and then we (referring to the family) are going to have to find somewhere else and I know someday my parents won’t be able to take care of him because they’ll have to take care of themselves so I plan on taking care of him; not necessarily live with him but making sure I live nearby in case he needs anything”. The respondent in this case is fourteen years old.

Four out of the seven respondents revealed that when considering their siblings’ future they felt as though their sibling would still be living with a family member such as themselves or their parent/guardian. This response was from a twelve year old subject, “He’ll always be with me.” “When he’s older, he’ll probably be with my parents or me” was another response in addition to, “We (the family) are always going to be checking on him and close by and support him all through his life.” Two of the subjects had high aspirations for their sibling such as being a mathematician or being a sports announcer. These two siblings were earlier described as high functioning and both of the subjects had indicated to me that their autistic siblings were great with numbers and had remarkable memorization skills. The last subject, whose sixteen year old sibling resides in a residential program, stated “Yeah, I think about his future. I plan on putting him somewhere nice but somewhere that will work, school, or career aspirations while two of the respondents included plans for their autistic sibling as part of their own futures. For example, one respondent who is younger than his/her autistic sibling said “I’ll have a good job to be able to take care of (names autistic sibling)” and the other said of his/her severe autistic sibling “I plan on taking care of my brother because he can only stay at (names residential facility) until he is 22 and then we (referring to the family) are going to have to find somewhere else and I know someday my parents won’t be able to take care of him because they’ll have to take care of themselves so I plan on taking care of him; not necessarily live with him but making sure I live nearby in case he needs anything”. The respondent in this case is fourteen years old.

This study was exploratory in nature with the hopes of better understanding the concerns of siblings of children with autism and how they handled those concerns. The subjects in this study had concerns with their autistic sibling’s social limitations and harmful behaviors. When asked how the respondents handled those concerns, the subjects responded with problem solving techniques as opposed to emotional regulation strategies. In addition to these findings, the subjects also reported having concerns with their autistic siblings’ future and affirmed that they themselves would likely be involved in the caregiving of their autistic sibling. Unfortunately, research has revealed that siblings of adults with ASD had less contact with their brother or sister and were less likely to be involved in the adult care of their sibling when comparative groups were used (Ormond and Seltzer 2007).
The findings highlight the autistic sibling relationship and the many concerns typically developing siblings express regarding their autistic sibling. Understanding the siblings of a family with an autistic member helps professionals understand the dynamics of the family and this particular dyad.

References


Works Consulted


The Torture of Alleged Terrorists Necessary for Public Safety or a Criminal Act?

MICHAELA CLARK

Torture is defined in a variety of ways by many different sources. According to the World Medical Association’s (WMA) Declaration of Tokyo, torture is defined as, “the deliberate, systematic, or wanton infliction of physical or mental suffering by one or more people acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason.” The Declaration of Tokyo was passed in 1975 and updated many times, most recently in 2006. This is a landmark document that has been used as a model for other medical statutes. The Declaration of Tokyo prohibits the involvement of medical personnel in any activities that would negatively affect the recipient. It denounces torture and the use of torture by doctors (Miles & Freedman, 2009).

In international law, the authoritative definition of torture is contained in the 1984 United Nations Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT), signed by numerous nations including the United States. This document defines torture as,

any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. This definition does not include pain or suffering arising only from, inherent in, or incidental to lawful sanctions. (Miles & Freedman, 2009)

Given these definitions, are there any exceptions or situations in which torture is legally permissible?

Is torture legal?
The United States code prohibits torture with the consequence of severe penalties for its use. In Title 18, Part I, Chapter 113C, it states,
whoever outside the United States commits or attempts to commit torture shall be fined under this title or imprisoned not more than 20 years, or both, and if death results to any person from conduct prohibited by this subsection, shall be punished by death or imprisoned for any term of years or for life. There is jurisdiction over the activity prohibited...if the alleged offender is a national of the United States; or the alleged offender is present in the United States, irrespective of the nationality of the victim or alleged offender. (US CODE: Title 18, 2340A, 2008)

Torture is also banned by the Geneva Conventions. Along with over one hundred other nations, the United States agreed with and signed this international treaty in 1949, and ratified it in 1955 (Geneva Conventions Relative to the Treatment of Prisoners of War, 1950). The Geneva Conventions were written as an international guide as to how to treat prisoners of war, the sick, wounded, civilians, or any other non-violent people that the signatories may encounter while at war.

Furthermore in international law, the 1984 Convention Against Torture leaves no room to rationalize torture.

Each State Party shall take effective legislative, administrative, judicial or other measures to prevent acts of torture in any territory under its jurisdiction… No exceptional circumstances whatsoever, whether a state of war or a threat of war, internal political instability or any other public emergency, may be invoked as a justification of torture… An order from a superior officer or a public authority may not be invoked as a justification of torture. (OHCHR 1987)

Torture is prohibited by U.S. law, international law, and U.S. military law. Doctors and psychologists are also banned from participating in torture, as regulated by the American Medical Association and the American Psychological Association. Torture is an illegal activity under all circumstances.

What types of interrogation techniques are considered torture?
The United States government ignored relevant U.S. and international law when they legalized the following “enhanced interrogation techniques” to be used on terrorism detainees. Most of these methods are considered cruel, inhumane or degrading treatment or torture by various human rights organizations. The White House Office of Legal Counsel provided the justification for the use of “enhanced interrogation techniques”. The following table illustrates the techniques the U.S. government approved for use on detainees (Mayer 2009).

<table>
<thead>
<tr>
<th>U.S. Government (Office of Legal Counsel) Memos</th>
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<tbody>
<tr>
<td>• Use of a wet towel and dripping water to induce the misperception of suffocation</td>
</tr>
<tr>
<td>• Stress positions</td>
</tr>
<tr>
<td>• Removal of clothing</td>
</tr>
<tr>
<td>• The use of scenarios designed to convince the detainee that death or severely painful consequences are imminent for him and/or his family.</td>
</tr>
<tr>
<td>• Use of the isolation facility for up to 30 days</td>
</tr>
<tr>
<td>• Deprivation of light and auditory stimuli</td>
</tr>
<tr>
<td>• The use of 20 hour interrogations</td>
</tr>
<tr>
<td>• The use of falsified documents or reports</td>
</tr>
<tr>
<td>• Using detainees individual phobias (such as fear of dogs) to induce stress.</td>
</tr>
</tbody>
</table>

Table 1 (Dratel & Greenberg, 2005)

Was torture used on detainees?
Given our domestic laws against torture and international law prohibiting its use, it is clear that torture is an illegal activity. Given that it is a crime, the process for determining whether or not it has occurred is critical. One of the multiple difficulties in assessing torture allegations is the lack of objective evidence. Because of this, we can only assess the credibility of detainee and interrogator reports.

A central organization that monitors accusations of torture worldwide is the International Committee of the Red Cross (ICRC). The ICRC is one branch of the International Red Cross and Red Crescent Movement and is a humanitarian organization founded to assist victims of wartime violence and other types of conflict. One of their many tasks is to visit prisoners and detainees to ensure that international laws against torture are being respected (ICRC 2007).

The ICRC’s regional delegation for United States and Canada interviewed fourteen terrorism detainees who were held in captivity by U.S. forces. The interviews were conducted in private from October 6 - 11 and from December 4 - 14, 2006 (ICRC 2007).

All fourteen of the detainees were subjected to “enhanced interrogation techniques” used by the Central Intelligence Agency during their time at Guantanamo. Though twelve common methods were inflicted upon most of them and detailed in the ICRC’s report, an extensive variety of cruel procedures were imposed. Three of the most common “techniques” used by interrogators were “beating by use of a collar”, “suffocation by water”, and “prolonged stress standing” (ICRC 2007).
Several detainees told interviewers that their interrogators used a type of collar that was fastened around their necks and used to slam them against walls, causing severe injury. One detainee, Abu Zubaydah, reported that he was “slammed directly against a hard concrete wall”, then confined in a box for an extensive period of time. After being removed from the box, he said he was again slammed against the wall, this time with a sheet of plywood in front of it. “From now on it was against this wall that I was then smashed with the towel around my neck. I think that the plywood was put there to provide some absorption of the impact of my body. The interrogators realized that smashing me against the hard wall would probably quickly result in physical injury” (ICRC 2007).

Khaled Shaik Mohammed (KSM), the highest ranking al Qaeda operative captured, reported a similar scenario during his detention.

If I was perceived not to be cooperating I would be put against a wall and punched and slapped in the body, head and face. A thick flexible plastic collar would also be placed around my neck so that it could then be held at the two ends by a guard who would use it to slam me repeatedly against the wall. The beatings were combined with the use of cold water, which was poured over me using a hose-pipe. The beatings and use of cold water occurred on a daily basis during the first month. (ICRC 2007)

Three detainees described what is commonly referred to as "water-boarding", also known as "suffocation by water". Each of the prisoners was strapped to a bed. A cloth was then draped across their face. Water was poured onto the cloth, simulating the drowning experience and causing the detainee to panic. When the interrogator decided, the cloth was removed from the detainee’s face and the bed would be tilted in such a way that they were hanging from the straps that held them to the bed. During any interrogation session this procedure could be repeated multiple times (ICRC 2007).

According to the ICRC, “prolonged stress standing” was used on ten of the fourteen detainees. The prisoners were stripped naked and their wrists were shackled to the ceiling above their heads for an extended period of time, anywhere from two to three days incessantly, up to two to three months sporadically. When the detainees needed to relieve themselves, they were either allowed by a guard to use a bucket, they were forced to wear a makeshift diaper, or they were forced to defecate on themselves. When they fell asleep, all of their body weight shifted to their arms and shoulders. Their legs and ankles became swollen because they were constantly standing (ICRC 2007).

These interrogation methods used clearly constitute cruel, inhumane, and degrading treatment. This demonstrates that U.S. personnel violated the Geneva Conventions and the UN Charter prohibiting torture. These and other acts of torture were the subject of this study.

Methodology

This study examines the alleged acts of torture committed by the United States government. Initial research demonstrated that torture occurred, and further study supported that hypothesis. The approach for this study was qualitative, as it consisted of analyzing legal documents, international statutes against torture, declassified military records, detainee statements, three in-depth case studies of detainees alleged to have been tortured, and reports from reliable human rights organizations. In recent years quantitative research has been the method of choice for many social scientists. The nature of this study called for a case study approach.

The case study approach “is a research strategy which seeks to explain the occurrence of a phenomenon in its natural setting” (Travis, 1983). Many factors comprise a complete representation of a case study and how certain events took place. The case studies drew upon published interviews with the detainees, lawyers, the military, journalists and translators. These case studies, although imperfect, provide real life examples of the Bush administration’s policies on interrogations. The case study approach documented how the United States government dealt with the detainee who claimed they were tortured. The current status of the specific detainee was examined and speculations are discussed as to if prosecutions will be conducted.

The limitations of this study include several concerns. First, there was a high degree of subjectivity in the case study selection process. Case studies were selected based on the availability of published information on the detainee. Thus the case studies examined were primarily cases which were closed and had substantial details regarding the detainee and their experiences. Due to the highly sensitive nature of this work, case studies which were more ambiguous and contained unsubstantiated allegations of torture were not accessible either due to their classification or other unknown factors. This represents a case study selection bias which limits the general reliability of the findings.

In addition, as former Vice President Cheney noted on May 20, 2009, there is classified intelligence suggesting that the enhanced methods prevented other attacks. These claims cannot be verified or refuted due to the classification of the alleged reports. Finally, the Supreme Court has not ruled on any detainee claims of torture, nor has any federal appeals
court ruled definitively that Bush’s interrogation guidelines were illegal.

Abu Ghraib (2003)
The definitive event demonstrating that torture was conducted occurred in the Abu Ghraib prison scandal of 2003. Abu Ghraib prison was located twenty miles west of Baghdad that had been looted and left empty after the reign of Saddam Hussein. The prison was rebuilt and designed to be a U.S. military prison (Hersh 2005).

U.S. personnel from the 372nd Military Police Company, 320th Military Police Battalion, and 800th Military Police Brigade participated in the criminal abuse of detainees at the Abu Ghraib prison. From extensive photographic evidence as well as witness statements, it has been confirmed that U.S. personnel tortured Iraqi prisoners between October 2003 and December 2003 (Dratel & Greenberg, 2005). These photographs became public on April 28, 2004, when the CBS News Program “60 Minutes II” broadcast many of the pictures.

One of the pictures that shocked the public was the hooded and caped Arab man, standing on a box with electrical wires attached to him, as evidenced in figure 1. This picture became one of the main symbols of Americans torturing Iraqis.

When asked about this picture, Specialist Sabrina Harman of the 372nd Military Police Company stated, “that her job was to keep detainees awake”. She also said, “MI wanted to get them to talk. It is Grainer and Frederick’s job to do things for MI and OGA to get these people to talk” (Dratel & Greenberg, 2005). Harman allegedly threatened the detainee with electrocution if he stepped off the box, as a method of keeping him from falling asleep.

Other illegal acts were committed by U.S. personnel as evidenced by an investigation from General Antonio Taguba. The following table lists these criminal acts, as evidenced from photographs, confessions, witness statements, and written statements from the detainees.

The Taguba Report: Criminal Acts Committed Against Abu Ghraib Prisoners

- Punching, slapping, and kicking detainees; jumping on their naked feet
- Videotaping and photographing naked male and female detainees
- Forcibly arranging detainees in various sexually explicit positions for photographs
- Forcing detainees to remove their clothing and keeping them naked for several days at a time
- Forcing naked male detainees to wear women’s underwear
- Forcing groups of male detainees to masturbate themselves while being photographed and videotaped
- Arranging naked male detainees in a pile and then jumping on them
- Positioning a naked detainee on a MRE box, with a sandbag on his head, and attaching wires to his fingers, toes, and penis to simulate electric torture
- Writing “I am a Rapest” (sic) on the leg of a detainee alleged to have forcibly raped a 15-year old fellow detainee, and then photographing him naked
- Placing a dog chain or strap around a detainee’s neck and having a female soldier pose for a picture
- A male MP guard having sex with a female detainee
- Using military working dogs (without muzzles) to intimidate and frighten detainees, and in at least one case biting and severely injuring a detainee
- Taking photographs of dead Iraqi detainees

(Dratel & Greenberg, 2005)

Case Studies
The following three case studies were conducted to evaluate the evidence and impact in torture allegations.
A. Abu Zubaydah

Abu Zubaydah is believed to be one of the top-ranking leaders of Al Qaeda and is allegedly personally acquainted with Osama bin Laden. Before joining the anti-Soviet jihad in Afghanistan, he was involved in the Palestinian uprising against Israel (Mayer 2009). He is believed to have been in charge of screening recruits before they entered training at al Qaeda camps in Afghanistan. He was also in charge of one of the camps, called the Khalden camp. After the recruits were trained, Zubaydah was allegedly responsible for briefing them on their assignment before they were sent off. Because of this, U.S. officials believed that Zubaydah had information about an endless number of al Qaeda cells and agents worldwide. Zubaydah was thirty years old when he was captured by U.S. forces on March 28, 2002 (Shenon & Risen, 2002).

Zubaydah’s deepest passion was his hatred for Israel and anyone who spoke against Islam. He was very open about his motives and thoughts with his captors. However, his interrogators were frustrated at the lack of “actionable intelligence” that he was able to provide. They wanted specific information from Zubaydah about plots and movements of al Qaeda. Later Zubaydah would confess that he gave U.S. personnel false information while he was being tortured (Mayer, 2009).

One of the most severe methods inflicted on Zubaydah and documented in the ICRC report was water-boarding. Zubaydah reported being water-boarded approximately five to ten times during one week. During one particularly intense session Zubaydah claims he was water-boarded three times (ICRC 2007).

He described the experience,

I was put on what looked like a hospital bed, and strapped down very tightly with belts. A black cloth was then placed over my face and the interrogators used a mineral water bottle to pour water on the cloth so that I could not breathe. After a few minutes the cloth was removed and the bed was rotated into an upright position. The pressure of the straps on my wounds caused severe pain. I vomited. The bed was then again lowered to a horizontal position and the same torture carried out with the black cloth over my face and water poured on from a bottle. On this occasion my head was in a more backward, downwards position and the water was poured on for a longer time. I struggled without success to breathe. I thought I was going to die. I lost control of my urine. Since then I still lose control of my urine when under stress. (ICRC 2007)

Since Zubaydah was transferred to the prison at Guantanamo Bay, he is reported to have had at least 200 seizures. Due to the effects of these interrogations, his medical health continues to be of serious concern (Amnesty International 2009). According to Joseph Margulies, co-counsel to Zubaydah, Zubaydah endures extreme headaches and has permanent brain damage from being slammed against walls repeatedly.

He has an excruciating sensitivity to sound, hearing what others do not. The slightest noise drives him nearly insane. In the last two years alone, he has experienced about 200 seizures. But physical pain is a passing thing. The enduring torment is the taunting reminder that darkness encroaches. Already, he cannot picture his mother’s face or recall his father’s name. Gradually, his past, like his future, eludes him. (Margulies, 2009).

In March 2007, Zubaydah was declared an unlawful “enemy combatant” after a hearing before the Combatant Status Review Tribunal (CSRT). The CSRT is a process that takes place at Guantanamo Bay detention center that assesses the charges against the detainees being held, and determines whether or not they are “enemy combatants”. Although no formal charges have been brought against Zubaydah, he is still being detained at Guantanamo Bay (Human Rights First, 2009).

B. Maher Arar

Maher Arar is a Canadian citizen who worked as a communications engineer in Natick, Massachusetts. His family immigrated to Canada from Syria in 1987 when he was a teenager. He has two university degrees, one a graduate degree in telecommunications. He lived in Ottawa, Ontario and Framingham, Massachusetts.

Arar did not have a criminal record at the time of his detention. His family was on vacation to Tunisia and Arar was traveling alone back to Canada because of work obligations. He was thirty-four years old when he was detained by US officials during a layover in John F. Kennedy Airport in New York on September 26,
The Royal Canadian Mounted Police had supplied the U.S. government with false information about Arar, including the theory that he might have been an Islamic extremist (Mayer 2009).

Arar was shackled and flown to multiple countries by the United States government’s “Special Removal Unit”, his final destination being Syria. Syria would not directly accept Arar, so he was flown into Amman, Jordan, then driven into Syria. He was held in the underground prison known as “The Palestinian Branch”, more commonly referred to as “The Grave”. Only four months before Arar was detained, President Bush had officially added Syria to the list of outlaw states, also known as the “Axis of Evil” (Mayer, 2009).

Arar claimed that he was kept in a dark, dirt chamber that he compared to a grave. It was three feet wide, six feet deep, and seven feet tall. He claimed that the ceiling had a small opening, and the chamber above him was inhabited by rats and cats. He reported that they frequently urinated through the opening onto him. Arar had two bottles in the cell – one used for water, and one used for urination. Barely any light entered the cell as it was extremely dark. The cold concrete floor made it so that Arar woke up approximately every fifteen minutes to turn over. Arar lived in this place for ten months and ten days (Arar, 2003).

Arar claims he was beaten severely with a two-inch thick electrical cable. He claimed,

They hit me with it everywhere on my body. They mostly aimed for my palms, but sometimes missed and hit my wrists – they were sore and red for three weeks. They also struck me on my hips, and lower back…They used the cable on the second and third day, and after that mostly beat me with their hands, hitting me in the stomach and on the back of my neck, and slapping me on the face. Where they hit me with the cables, my skin turned blue for two or three weeks, but there was no bleeding. At the end of the day, they told me tomorrow would be worse. So I could not sleep. Then on the third day, the interrogation lasted about 18 hours. They beat me from time to time and make me wait in the waiting room for one to two hours before resuming the interrogation. While in the waiting room I heard a lot of people screaming. (Arar, 2003).

Arar was released on October 5, 2003 by his Syrian captors to the Canadian consulate and was transported back to Canada. Arar brought a lawsuit against the Canadian government for the unfounded information they provided to the U.S. The Canadian government paid Arar 10.5 million dollars in compensation. They also issued an official apology to Arar for his detention (Palmer, 2007).

Arar sued the U.S. for his unlawful detention. However, his case was dismissed due to national security claims. Whether the government’s claims are substantiated or not is still to be determined as the Second Circuit Court of Appeals is reviewing the case. Because of the extensive reports issued by the Canadian government, the confidentiality claims of the U.S. government seem particularly unfounded.

Though President Obama is continuing the cycle of secrecy surrounding extraordinary rendition cases, many human rights organizations are calling for justice in the case of Maher Arar (The New York Times, 2009).

D. Khalid Sheikh Mohammed

U.S. officials and Pakistani forces captured Khalid Sheikh Mohammed (KSM) at 4 a.m. on March 1, 2003 at an apartment in Rawalpindi, Pakistan. He was taken to a safe house by Pakistani officers before being transported to a CIA secret prison located supposedly in Afghanistan (Mayer, 2009).

The U.S. had been tracking KSM for years. KSM confessed to having a role in thirty terrorist plots, including the kidnap and decapitation of American journalist Daniel Pearl in 2002. Not only was the United States after KSM, but France had a warrant out for his arrest, and Australia wanted him for questioning as they were investigating into a bombing in which 202 Australians were killed (BBC News, 2009).

KSM claimed that he was the mastermind behind the 9/11 attacks. KSM also claimed to have plotted attacks including the bombing of buildings in many American cities – Chicago, Los Angeles, Seattle and New York. Though only some of his claims can be backed up by outside evidence and intelligence, Mohammed’s zeal for his terrorist jihad is evident.

Khalid Sheikh Mohammed was held in multiple CIA “black sites” or secret prisons from his capture in March 2003 until he was transferred to the Guantanamo Bay detention center in Cuba in September 2006. He reported to the International Committee of the Red Cross that he was subjected to many forms of cruel treatment and torture during his detention at the secret prisons (Mayer, 2009).

Figure 4
KSM reported that he was water-boarded many times during his interrogations by the CIA. He said,

I would be strapped to a special bed, which could be rotated into a vertical position. A cloth would be placed over my face. Cold water from a bottle that had been kept in a fridge was then poured onto the cloth by one of the guards so that I could not breathe...The cloth was then removed and the bed was put into a vertical position...Injuries to my ankles and wrists also occurred during the water-boarding as I struggled in the panic of not being able to breathe. (ICRC, 2007)

KSM said that a doctor was present during the water-boarding sessions. He claimed that the doctor would measure the oxygen content in his blood and inform the interrogators of his pulse. KSM said that this was so that they could, “take me to my breaking point” (ICRC, 2007). He reported that the water-boarding happened “on five occasions, all of which occurred during that first month [of his detention]”, and the water-boarding sessions were usually one hour long (ICRC, 2007).

The New York Times reported on April 20, 2009 that a secret United States Justice Department memo claimed that water-boarding had been inflicted on KSM 183 times in March 2003 (The New York Times, 2009).

Khalid Sheikh Mohammed was brought before the Combatant Status Review Tribunals which are held annually at the Guantanamo Bay detention center. Even though KSM was open about his role in the 9/11 attacks, the military commission legal process has received much criticism from many human rights groups and lawyers. The system is believed to be “deeply flawed”, as KSM never was allowed to contest his detention and was denied access to a lawyer. The information for the grounds against him are based on “secret evidence, hearsay, and confessions derived from torture” (Glaberson & Lewis, 2008).

Though there was a tremendous political push for a ruling to be made in the case of KSM before Bush left office, no finality was reached. KSM remains in custody indefinitely at Guantanamo Bay. Multiple human rights organizations, such as Amnesty International, American Civil Liberties Union and Human Rights Watch, have called for the investigation of torture claims made by KSM (Amnesty International, 2009).

**Conclusion**

This exploratory study documented numerous examples of terrorism detainees who were tortured by U.S. personnel in violation of federal and international law. President Obama appointed Attorney General Eric Holder to decide whether or not to pursue criminal investigations on these cases. Attorney General Holder recently appointed a prosecutor to examine cases involving detainee abuse inflicted by the CIA.

John H. Durman, a federal prosecutor from Connecticut, will review the evidence and decide whether a full criminal investigation is called for. Holder said of his decision, “As attorney general, my duty is to examine the facts and follow the law. Given all of the information currently available, it is clear to me that this review is the only responsible course of action for me to take” (Mazzetti & Shane, 2009).

After reviewing all of the facts that are available, the conclusion of this study is aligned with the view of Attorney General Holder. A criminal investigation should hold accountable those who have committed illegal torture. If a criminal prosecution commences and CIA personnel are found guilty of torture, another question remains. Should the lawyers and policy makers who authorized the interrogation methods be criminally prosecuted? This study concludes that not only should the specific interrogators be brought to justice, but Bush administration officials who authorized the torture should be identified and held accountable.

**References**


Finding the Pill on the Floor: How Contrast Sensitivity Affects Daily Living Skills in Alzheimer’s Disease Patients

MARLYN COLON

Alzheimer’s disease (AD) is a progressive brain disorder that gradually destroys an individual’s mental functioning and social capabilities, including the ability to carry out everyday activities. Although memory deficits affect AD patients’ ability to perform these activities, research suggests that visual perception impairments also contribute. One impaired visual perception ability, contrast sensitivity, enables one to distinguish an object from its immediate surroundings. The present project measured contrast sensitivity in a real-world task by having AD patients find a pill of various shades of gray on a tiled background. Results were compared to young and elderly control participants. Participants also filled out a questionnaire examining activities of daily living (ADLs). Results demonstrated that impairments in contrast sensitivity were observed both as a function of normal aging and as a result of AD. Performance correlated with the ADLs of household care and travel for both groups. Increasing contrast in environmental settings may aid these individuals, especially AD patients, in living a more independent lifestyle.

Research Question
How does the manipulation of contrast affect Alzheimer’s disease patients’ ability to detect a pill on a white-tiled surface? Do these findings relate to problems in activities of daily living experienced by these patients?

Introduction
General Introduction. Alzheimer’s disease (AD) is a progressive brain disorder that gradually destroys an individual’s mental functioning and social capabilities, including memory, reasoning, decision-making, communication, and the ability to carry out everyday activities. According to the Alzheimer’s Association, AD affects approximately 4.5 million Americans annually. By the year 2050, this number is expected to increase to 11.3 to 16 million. Although memory deficits are a primary symptom of AD and the one most often researched, other abilities including those in visual perception are also impaired (Cronin-Golomb, A., 1995; Gilmore, G. C., Cronin-Golomb, A., Neargarder, S., & Morrison, S. R. 2005; Mendola, J. D., Cronin-Golomb, A., Corkin, S. & Growdon, J. H., 1995; Neargarder, S. 2005). One impaired ability known as contrast sensitivity has direct implications for the ability of AD patients to carry out everyday activities. Contrast sensitivity is defined as the smallest difference in intensity that a person can resolve between an object and its immediate surroundings. For example, what shade of gray would an
Background. A number of research studies have identified contrast sensitivity impairments in AD patients (Cronin Golomb, Growden, & Corkin, 1995; Cronin-Golomb, Gilmore, Neargarder, Morrison, & Laudate, 2007). Results from these studies were obtained in a laboratory setting using a series of clinical vision charts such as the Vistech and the FACT (Functional Acuity Contrast Test). These tests allow one to measure contrast deficits across a range of different spatial frequencies. Results show that AD patients exhibit contrast deficits across all levels of spatial frequency. This would potentially make it difficult for patients to distinguish between people, places, and things in a real-world environment. Although research has demonstrated that deficits measured in a laboratory setting using vision charts relate to deficits in the real-world, we have no direct measure of contrast sensitivity in real-world tasks. For example, although we may know that patients will do better in a high-contrast task (pouring milk into a black mug) than a low-contrast task (pouring milk into a white mug), we do not know what the contrast between the two items (milk and cup) needs to be in order for the patient to succeed at this task.

Present Project. The present project aimed to measure contrast sensitivity in a real-world task by having AD patients find pills of various shades of gray on a tiled background (simulating a white-tiled floor). This method allowed us to find the exact contrast the pill needs to be to the background in order for patients to be able to successfully find the pill. These findings were then compared to a questionnaire that measured general activities of daily living. This enabled us to compare laboratory based tests to everyday functioning. The results from this study aim to increase the functional independence of AD patients, both in the home environment and nursing home facilities. This increase in independence can result in reducing health care costs and increase the overall well-being of patients.

Methodology

Participants. This study consisted of 15 patients with AD, 13 healthy elderly control participants (EC) and 25 young participants (YC). EC participants were community volunteers and AD patients were recruited from Community Family Incorporated (AD day programs) located in Lowell and Medford, Massachusetts. Participants were matched on education, age, and near acuity.

Materials and Procedures. Materials consisted of a questionnaire that measured activities of daily living, and four conditions that measured the ability of participants to identify a pill of varying contrast levels on a tiled surface. Each measure is described in detail below.

Questionnaire. The Activities of Daily Living Scale (ADL) was given to each participant and his/her caregiver or informant. The ADL scale consists of 28 items that cover areas of self-care, household care, employment/recreation, shopping/money, and travel/communication.

Pill Study. The pill study consisted of four different conditions. Two of these conditions were naturalistic and two were computerized. When conducting research with patient populations it is often the case that researchers use computerized stimuli to measure abilities and then generalize these findings to the real-world. It is unclear, however, whether one can make direct statements about real-world abilities based on these artificial measurements. One goal of this study was to compare performance on computerized assessments to performance on comparable naturalistic assessments. As such, two naturalistic conditions were developed. The first used a real pill on a real background (N1: completely naturalistic), while the second used a printed pill on a real background (N2: partially naturalistic). The contrast of the pill to the background was identical in both conditions. The first computerized condition (C1) was perceptually identical to condition N2 (contrast values are identical, luminance values are different), except it was presented on a computer, whereas the second computerized condition (C2) was physically similar to condition N2 (both contrast and luminance values were similar) but was perceptually different than N2. The rationale for including these four conditions was to aid in differentiating the factors that contribute to the ability of an Alzheimer’s patient to detect an object of varying shades of contrast on an identified surface and to determine whether performance differed between computerized and naturalistic assessments. Each of the four conditions used seven pills of varying shades measured using a Minolta CS-100 photometer. Shade one was the lightest and the hardest to see and shade seven was the darkest and the easiest to see. The luminance of each of the seven pills was measured against the luminance of the tiled background to result in seven different contrast levels per condition. For all conditions, the contrast of the pill relative to the background ranged from 1.2% to 6.6%.

Naturalistic Version 1 (real pill; N1). In this version, pills were created to emulate a 10 mg donepezil HCL tablet. This drug is commonly prescribed to individuals with AD. Pills were presented on an 8.5” x 11” piece of paper printed with a six by six grid comprised of 36 squares meant to represent a tiled
background. Each of the seven pills was presented randomly four times per quadrant for a total of 112 trials. A white screen was used to conceal the placement of the pill from the participant before each trial. Participants were instructed to locate and touch the pill as quickly as possible. Reaction times were recorded.

Naturalistic Version 2 (printed pill: N2). In this version, pills were printed onto a tiled background; real pills were not used. The background from N1 remained the same. A photometer was used to verify the contrast values. Trials were bound using 3 binders and were presented to participants by flipping the pages like a book. Like in N1, 112 trials were presented and reaction times were recorded.

Computerized Version 1 (high luminance: C1). Using Adobe Photoshop, trials perceptually similar to both N1 and N2 were created. The same counterbalancing and randomization from conditions N1 and N2 were used and presented on a calibrated touch screen monitor using Superlab 4.0. This program recorded the area touched by the participant and reaction times.

Computerized Version 2 (low luminance: C2). A different computerized version was created with the luminance and contrast values similar to the naturalistic versions. Again, contrast values of the pills were consistent with those used in C1. Randomization, counterbalancing and presentation were also consistent with C1. Reaction time was measured using Superlab 4.0.

Results
Reaction time data were analyzed by using mixed design analyses of variance followed by a priori comparisons using an adjusted alpha level for each condition. Correlational analyses were also performed between the pill reaction time data and the ADL scale. Any and all violations regarding the use of parametric statistics were properly addressed. For ease of presentation, results are displayed graphically using symbols to indicate significant differences between groups. Results of all of the individual analyses are not listed.

Naturalistic Version 1 (real pill: N1). For normal aging (YC versus ECs), there were no significant differences in reaction time across the seven contrast levels. However, AD patients differed from EC participants at all contrast levels (see Figure 1).

Naturalistic Version 2 (printed pill: N2). For normal aging (YC versus ECs), there were significant differences in slower latency times in contrast levels two through six. However, AD participants compared to ECs showed significant differences for levels two through five, no differences were noted at levels six or seven (see Figure 2).

Computerized Version 1 (high luminance: C1). For normal aging (YC versus ECs), there were significant differences in reaction time across contrast levels two through seven. AD participants when compared to ECs did not show significant differences across any of the seven contrast levels (see Figure 3).

Computerized Version 2 (low luminance: C2). For normal aging (YC versus ECs), there were differences in reaction time across contrast levels three through seven. When AD patients were compared to ECs there were differences across contrast levels three through seven. (see Figure 4).

Everyday Functioning Questionnaire. For both AD and EC groups, significant positive correlations were noted between RT performance and the ADLs of household care and travel.

Discussion
In regards to normal aging, results indicated that EC performance when compared to YC performance was significantly slower for the printed pill (N2), computerized high (C1), and computerized low (C2) conditions. Most likely, the additive effect of decreased contrast across conditions and low-luminance stimuli resulted in poorer performance; the EC had more difficulty seeing the pills. Both YC and EC performance was similar on the Real Pill condition; this suggests that the cue of depth and the naturalism of the stimuli enhanced the detection of the object despite low luminance. An implication of the Naturalistic 3-D Pill appears to be that for a nearby and a non-cultured real world assessment, depth is a strong indicator of performance and that in some cases, if depth is present, contrast deficits may be minimized. These findings were also related to the ADLs of household care and travel. Taken together, these results support the findings that EC individuals demonstrate impairments in contrast sensitivity and that these impairments directly relate to real-world functioning.

When compared to the EC group, individuals with AD exhibited slower latency times on all pill conditions except for the Computer High-Luminance condition (C1). The lack of a significant difference between EC and AD individuals for this condition was most likely due to the added benefit of increased luminance provided by the computer monitor. Though they did not make any errors on the Naturalistic 3-Dimensional Pill (N1), they were slower than the EC group at all contrast levels. Differences in performance were also observed for the Computer Low-Luminance Condition (C2). In general, the AD group exhibited slower reaction times than the EC group.
across contrast levels most likely due to the low luminance and contrast levels of the stimuli.

An interesting pattern emerged for the Naturalistic Printed-Pill condition (N2). Here, differences between the AD and EC participants were observed at the lower contrast levels but not the higher ones (contrast levels 6 and 7). At these levels, the AD and EC participants exhibited similar reaction times. These results suggest that in certain conditions, if the contrast of the stimuli is high enough, performance differences between groups disappear. Overall, findings suggest that by increasing the luminance and contrast of stimuli, one can potentially compensate for contrast sensitivity losses noted in the AD population. Similarly to the EC group, findings were related to the ADLs of household care and travel thereby suggesting that losses in contrast sensitivity relate to everyday functioning.

These results suggest that individuals with AD exhibit contrast deficits beyond those that occur with normal aging. These deficits most likely impair their ability to function independently. In addition, results tend to differ depending on a variety of factors including the overall luminance of the stimuli used, the contrast of the stimuli when compared to a background, and whether the stimuli are presented in a naturalistic or computerized form. All of these things should be taken into account when generalizing laboratory results to real-world conditions. Finally, by examining the results of the four conditions, one can pinpoint where performance falls off for AD patients. This information can be used to create environments that help to minimize the visual deficits experienced by these patients.

Interventions to improve visual function, specifically contrast enhancement and increased luminance, may be of practical use in improving the everyday functioning of older adults. For example, it may be of use for individuals when managing their medications. If the right level of contrast is used in the environment wherein individuals with AD reside, they will be better able to detect pills on a surface which will increase medication adherence. Increasing contrast in environmental settings can aid AD patients in living a more independent lifestyle.

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Figures
For each of the figures that follow, reaction time (in log units) is plotted as a function of Michelson contrast values (also in log units). Each of the seven data points represent the mean reaction time for that contrast level. From left to right, the contrast levels are given in order ranging from contrast level 1 (the most difficult to see) to contrast level 7 (the easiest to see). Vertical bars represent the standard error of the mean for each condition. Results are plotted for the YC, EC, and AD groups. The symbol ‘†’ represents a significant difference between the YC and EC groups and the symbol ‘*’ represents a significant difference between the EC and AD groups.
References


Domination, Individuality, and Moral Chaos: Nietzsche’s Will to Power

ANGEL COOPER

One of the most well known, but deeply debated, ideas presented by the philosopher, Friedrich Nietzsche, is the will to power. Scholars have provided a variety of interpretations for what Nietzsche means by this concept. In this paper, I argue that, under each interpretation, Nietzsche may still face what I call, the problem of moral chaos, or the problem of endorsing the claim that immoral acts, such as murder and torture, are justifiable as they exemplify the human will towards power over others. I ultimately argue that Nietzsche's philosophy avoids this problem: though Nietzsche proposes it is possible to harm others as a way to power, we should not direct our will to power in this manner. To illustrate this point, I investigate common interpretations of the will to power, arguing that the psychological interpretation is the most compelling. From here, I demonstrate through Nietzsche’s passages that he clearly inspires humanity to direct the will to power towards individual inner growth, and not as a form of domination. Therefore, Nietzsche does not fall into the problem of moral chaos.

Part I. The Will to Power: Metaphysical, Metaphorical or Psychological?

In order to understand the moral connotations of the will to power, we need to first determine what Nietzsche really means by the will to power. There are generally three different interpretations: the metaphysical, metaphorical, and psychological interpretations. In this part, I examine each of these interpretations, arguing that the psychological interpretation is the most compelling.

Those who explain the will to power as a metaphysical description of nature assert that Nietzsche expresses the will to power as being the nature of reality, and of all things inorganic or organic. There are two essential components to this metaphysical interpretation: human beings and the world. Regarding human beings, the will to power is emphasized as something real in human behavior. A being is presented as different forces of energy that are constantly fighting for power (Danto 2005, 199-200). In his posthumously published notes, Nietzsche presents the will to power as a system of “dynamic quanta” (WP:635), where such quanta are in a relationship of struggling to overpower one another. This power must be commanded or balanced to promote a healthy individual. If it is not, and one force has excess power in deficient areas, then the individual is insufficient, sick, or weak (Richardson 1996, 39-43).
The world is also understood as will to power. John Richardson (2006) maintains that Nietzsche characterizes all of nature as the will to power. Nietzsche introduces this idea in *Beyond Good and Evil*, where he states:

> Suppose, finally, we succeeded in explaining our entire instinctive life as the development and ramification of one basic form of the will—namely, of the will to power, as my proposition has it; suppose all organic functions could be traced back to this [...] then one would have gained the right to determine all efficient force univocally as will to power. (BGE:36)

This passage illustrates that Nietzsche was working with the theory that all things are reduced to the one underlying metaphysical substance that he calls the will to power. Nietzsche describes this substance as a “dynamic quanta” of energy and a “force” (WP:619) that is directed outward to overcome, master, or encapsulate other wills. According to Richardson, the will to power is an act of “taking power over something else, ‘incorporating’ it” (Richardson 1996, 22). All things in nature are consuming other things in an act for power and growth. As Nietzsche puts it, “This world is the will to power—and nothing besides! And you yourselves are also this will to power—and nothing besides!” (WP:1067). Thus, following this interpretation, we are a force of power. Whether power is described as an “effortful pursuit” (Richardson 1996, 22) or a drive to “overcome obstacles” (Danto 2005, 207), it is always what we are. Here, power is a drive in everything to move outward and consume space.

Although the metaphysical interpretation can be supported in Nietzsche’s writings, I argue that there are several problems with this interpretation. First, it is based primarily on Nietzsche’s notes and not his originally published works and it is inadequate to base an interpretation on information arrived at through Nietzsche’s notes, as it may be the case that these ideas weren’t fully developed yet. Second, this interpretation is inconsistent with Nietzsche’s ideas in his published works because it conflicts with his view of perspectivism, the epistemic claim that we only have knowledge and understanding through our human perspective, and know nothing beyond this. According to perspectivism, we cannot see the world-in-itself, or the metaphysically real world, but only a world that is envisioned through our human perspective. Therefore, we can never truly know anything about nature. However, the metaphysical interpretation implies that we can know the truth about nature, since nature truly is the will to power. Thus, there is an inconsistency between this interpretation and Nietzsche’s perspectivism. Third, when we examine Nietzsche’s published accounts of the will to power, we find he primarily presents the will to power only in humanity, and not in nature as a whole (see, for example, GM:II:12; GM:III:18; BGE: 19; BGE:259; Z:II:2). It is only obvious in his notes that he expands the notion to nature. So, though this interpretation may be grounded in Nietzsche’s notes, it is inconsistent with his published ideas on the will to power.

Finally, Nietzsche’s published passages of the will to power that seem to suggest a metaphysical interpretation can be explained in a non-metaphysical sense. Take a famous passage, BGE:36, as an example. Aphorism 36 seems to be expressing that all of nature is will to power. However, Maudemarie Clark (1990) and Linda L. Williams (1996) each identify that this passage has a “hypothetical form” (Williams 1996, 454). Nietzsche begins with the statement, “Suppose all organic functions could be traced back to this will to power [.]” Thus, since it is a hypothetical statement, it is a mistake to say that Nietzsche here espouses the reality of the content made in the hypothetical statement; rather Nietzsche is only ‘speaking hypothetically,’ as it were. For these reasons, then, we can dismiss the metaphysical interpretation.

The next view, the metaphorical interpretation, maintains that, since we cannot know anything about the world-in-itself, we must create a fiction for the human world, thereby creating meaning in our lives. Nietzsche does this by creating the will to power, a fictional worldview. The will to power is thus not real in nature or humanity, but is, as Wayne Klein puts it, “one way among others of describing nature, a form of description that Nietzsche recognizes as explicitly metaphorical” (Klein 1997, 156). This metaphorical description is valuable for Nietzsche, as it is a creation that inspires humanity to say “yes” to life. Nietzsche proclaims, “For the game of creation, my brothers, a scared ‘yes’ is needed” (Z:I:1). Here, “The game of creation” is a fiction that establishes value in life, allowing us to embrace life and derive strength from it.

According to this interpretation, Nietzsche created the fiction of the will to power because he values humanity’s strength in life. Instead of viewing the will to power as real in humanity, here it is understood as a perspective of Nietzsche’s that he places onto humanity. Following perspectivism, the will to power is one perspective Nietzsche offers as a means to envision the world. If we accept this image, we will constantly strive to overcome what we are and better ourselves or, in Nietzsche’s words, through the process of overcoming, “you shall become the person you are” (GS:III:270).

I maintain that this interpretation falls short as well. First, there are passages from Nietzsche’s published works that describe the will to power as a psychological drive in all humanity, which
cannot be explained by the metaphorical interpretation. For example, in BGE:259 Nietzsche explains that each human being has a will to power and hence “belong[s] to the essence of what lives, as a basic organic function; it is a consequence of the will to power, which is after all the will of life” (BGE:259). Since we have already determined that the metaphysical interpretation is incorrect, and because here Nietzsche describes the essence of human beings, we can clearly understand this passage as a psychological explanation of humanity. Nietzsche is proposing that the will to power is an observed psychological trait in humanity, and not just any trait, but the trait that motivates human beings to live. The metaphorical interpretation cannot explain this passage, as Nietzsche makes no indication here that he implies the will to power as a psychological metaphor. Instead, he expresses it as a literal psychological characteristic in human nature. Second, the metaphorical interpretation doesn’t provide criteria to determine which passages and ideas of Nietzsche’s are fictional and which are not. Though Nietzsche endorses perspectivism, he allows for one to have knowledge about human truths. Since Nietzsche allows for human truths in his philosophy, this implies that some of the ideas or observations he describes about humanity are real. Now, given this point, although it is not inconsistent to determine that the will to power is a fiction for Nietzsche, following the metaphorical interpretation there is no deciding factor for why this is so. Here, the metaphorical interpretation faces a slippery slope. If the will to power is considered a fiction and there is no criterion to adjudicate fictions from human truths, then all of Nietzsche’s explanations are fictitious. But this entails an inconsistency with Nietzsche’s purported truths about humanity. Thus, due to these reasons, I reject the metaphorical interpretation as an accurate account of the will to power.

The final interpretation of the will to power, the psychological interpretation, emphasizes the will to power as a secondary drive that influences first order drives. In other words, it is a drive to overcome or improve our desires, activities, and passions. For instance, one may have a first order drive, or desire, to be a writer, while the secondary drive – the will to power – underlies this desire and psychologically motivates one to overcome, or become better as a writer. The psychological interpretation proposes that Nietzsche conveys the will to power as only a drive in humanity. Rex Welshon explains that power for Nietzsche is striving to better one’s own activities and passions (Welshon 2004, 180-181). Nietzsche suggests this point in The Genealogy of Morals as he describes the will to power as “the strongest, most life-affirming drive” and states that we are “obedient […] to the same basic instinct” (GM: III:18). That is, the will to power is a drive in humanity and an instinct inherent in us. Furthermore, Welshon notes that the will to power (the secondary drive) shapes a specific desire (the primary drive) by constructing a new ability and changing not just a person’s ability, but his or her whole self (Welshon 2004, 180-182). This is related to Nietzsche’s notion of self-overcoming, as “realizing a drive or intention, the activity itself […] can result in our overcoming our goal in pursuing it” (181). Through shaping our activities, the will to power allows us to overcome ourselves by changing or growing, which reconstructs our whole being so that we have not just obtained a goal, but changed something fundamental in ourselves.

I maintain that one can defend the psychological reading of the will to power from common objections presented against it. The first objection holds that this interpretation cannot account for Nietzsche’s obvious endorsement of humanity creating a fictitious world, in passages like BGE:5, where Nietzsche speaks of philosophers creating “truths” and openly accepts that we create the world through images. To defend the psychological interpretation against this argument we must return to Nietzsche’s perspectivism and acceptance of human truths. If we consider the will to power a human truth about human psychology, then this interpretation is still consistent with BGE:5. In this case, the will to power as a psychological drive urges philosophers specifically to find truths about the world-in-itself. Since they cannot find such truths, philosophers create truths from their own values that they believe to be real truths about nature, so as to fulfill their need for understanding. These truths however, are not real about nature. Therefore, philosophers are only creating fictions. Thus, following the psychological interpretation, the will to power is a human truth, meaning it is something we can observe in humanity through the human perspective. It is not something we have created, but something we recognize as a drive in humanity that motivates us to create an image of the world through our values.

A second objection holds that the will to power cannot be an underlying psychological drive for human beings because we first need a primary desire, and then we feel the motivation for growth and overcoming in this desire (Clark 1990, 211). I argue that this objection fails because it is conceivable for the will to power to exist independent of any other drive. It is common to feel the need to struggle and better oneself without that need being initially inspired from a specific desire. It is plausible to have an underlying drive to struggle to overcome and then focus or direct that drive onto one’s passions and desires. For example, I may love to write, but my wanting to write better could come from the general motivation or desire to overcome all obstacles, and thus I would focus this drive towards writing because I enjoy doing it. Also, I may feel the desire to master any skill, so as to better myself or be the best at something, where the activity I am mastering is of less importance than the
feeling of mastering, itself. It is possible, then, for one to have a drive to struggle before having a desire. As Nietzsche puts it, “What does not kill me makes me stronger” (TI:Maxims:8), thereby suggesting the inherent value of struggling, itself.

Thus, after examining all three interpretations of the will to power, I find that the psychological interpretation is the most compelling. This interpretation can defend all the objections presented against it, which the metaphysical and metaphorical cannot do. It has no strong arguments to refute it. Having determined that the psychological interpretation is the correct account, we must now question if the will to power leads to the problem of moral chaos.

Part II. The Will to Power: Strong Overmen or Brutal Tyrants?

In this part, I explore two questions: (1) Does Nietzsche maintain, descriptively, that violence can be a form of the will to power?, and (2) Does Nietzsche, normatively, maintain that one should perform violent acts to increase power? I argue that though the answer to the former is yes, the answer to the latter is no, thereby showing us why Nietzsche’s will to power does not lead to the problem of moral chaos.

Through two specific passages from Nietzsche concerning the will to power, we can clearly observe that he does recognize these harmful acts towards others as an expression of the will to power. The first passage presents the will to power in those who are strong:

Human beings whose nature was still natural, barbarians […] men of prey who were still in possession of unbroken strength of will and lust for power, hurled themselves upon weaker, more civilized, more peaceful races[….] Their predominance did not lie mainly in physical strength but in strength of the soul[.] (BGE:257)

Nietzsche describes the will to power in these “barbarians” through their attacking and dominating of weaker societies. We normally understand barbarians as those who have little sympathy, are uncaring, and are cruel. It is clear that Nietzsche traces these uncaring and unsympathetic acts of men dominating weaker men as an example of the will to power. Notice, however, that he describes these individuals as growing in their soul and not simply in physical strength. Although it can be directed in different ways, any overcoming is a form of the will to power, and Nietzsche illustrates here that these men are overcoming by dominating the weak.

The second passage presents the will to power in the weak:

“The will of the weak to represent some form of superiority, their instinct for devious paths to tyranny over the healthy— where can it not be discovered, this will to power of the weakest!” (GM:III:14). Nietzsche explains that the will to power is even in the weakest of beings, but it is also expressed here as tyranny, domination, and oppression of others. As Kaufmann explains, “[t]he assumption is that the powerful and the impotent are both imbued with the will to power, and that extreme or prolonged oppression and frustration may easily pervert this drive and make the oppressed look for petty occasions to assert their will to power by being cruel to others” (Kaufman 1974, 194). The act of hurting is not the expression of the will to power for the weak. It’s the superiority they feel in hurting others and a feeling of strength from this superiority is how they self-overcome (191). They become stronger and more assertive individuals by overpowering others. They grow inwardly by harming outwardly.

Thus, after examining these two passages, it follows that Nietzsche accepts domination and cruelty of others as a form of the will to power. Since the will to power is the drive for self-overcoming, as long as individuals are growing and recreating themselves in some way, any act is a form of will to power whether it is harmful or generous. The answer then to the first question is yes, harmful and violent acts towards others are a form of the will to power.

We now need to determine if Nietzsche believes we should use violence as a way to gain power. If so, then the problem of moral chaos arises, because he would endorse a society whose members torture, murder, and manipulate others for their own gain. However, if not, then Nietzsche avoids the problem of moral chaos, because he will promote a society whose individuals focus on themselves in an effort to self-overcome and will not dominate and harm others as a means for strength. Richardson argues that Nietzsche expects humanity to use violence as a form of struggling to gain the greatest amount of strength that is possible for them (Richardson 1996, 30). The argument here is that some of Nietzsche’s passages unmistakably praise injury, violence, and exploitation of other individuals as a way to gain power. Richardson explains that, for Nietzsche, “[a] drive’s strength level is measured by whether it is able to rule or master others in some way […] whereas growth or decline lies in ruling more or fewer […]” (30). He further holds that Nietzsche accepts violence and domination as one of the primary struggles for gaining the highest degree of power, claiming that “he most often and most emphatically identifies growth as ‘increased’ mastery of others” (32).

However, there is some bias in Richardson’s assessment that
Nietzsche accepts violence as a means to power. Richardson’s argument springs from the metaphysical interpretation and, therefore, is faulty. When arguing that Nietzsche endorses violence through the will to power, Richardson writes, “will to power aims at a real condition, specified independently of any perspectives about power” (Richardson 1996, 32). We have already determined though, that, for Nietzsche, we cannot disconnect ourselves from our perspectives, so the will to power cannot be explained as a phenomenon we understand contrary to a perspective. This is precisely what Richardson is claiming when he suggests that Nietzsche endorses mastery over others as a primary means towards power, because the drive for power is something fundamentally real in everything. Thus, Richardson’s argument fails because it is dependent upon the metaphysical interpretation of the will to power, and so carries with it, all of the problems attached to this interpretation.

Richardson also argues that there are passages from Nietzsche that suggest violent acts towards others should be a primary direction of the will to power. For instance, Nietzsche declares, “mankind in the mass sacrificed to the prosperity of a single stronger species of man—that would be an advance” (GM: II:12). This statement appears to endorse harmful acts or manipulation of other beings for one’s own sake. However, neither here nor anywhere else in this passage does Nietzsche refer to a sacrifice as something violent or harmful for this mass of mankind. Nietzsche elsewhere explains the sacrifice of the weak as “serving a higher sovereign species that stands upon the former and can raise itself to its task only by doing this” (WP:898). Nietzsche here does not propose that the strongest men harm the weak, but that they must stand upon them. That is, the strong need the weak to achieve their strength.

Furthermore, it is not evident that Nietzsche describes his ideal being, who he calls the overman (Z:P:3), as dominating or using weaker wills in a harmful or violent manner. He describes ‘strong men’ or ‘barbarians’ as being harmful to others, but this is not the overman. He may respect the strength in these brutal types, but he aspires for us to become overmen, not barbarians. Nietzsche advocates a struggle to improve ourselves beyond what we have ever achieved. He urges us to advance beyond this master morality (BGE:260) and become overmen, and he does not associate violence with these men.

Thus, although Nietzsche has a few passages that initially appear to endorse or lead to violent and harmful acts towards others, when examining these passages closely and relating them to the rest of his philosophy it is evident that they are not advocating violence and torture towards others. Nietzsche is presenting his description of human nature and his admiration of creation here. He illustrates, not that there are violent traits in humanity that must be intensified, but merely that humanity already has such traits, and we must accept this before we can further advance our species.

Following Kaufmann, I maintain that while Nietzsche acknowledges harmful and violent acts towards others as a way to power, he does not encourage humanity to direct their will to power in this form. Kaufmann argues that “[w]hile Nietzsche, as a psychological observer, offers no evaluation, it is plain that he does not consider the neurotic’s will to power admirable. […] [A] will to power is recognized of which Nietzsche, by all indications, does not approve” (Kaufmann 1974, 184). Nietzsche does not approve of weak individuals harming others as a direction of their will to power because “the will to power is a positive motive which would make us strive for something” (1974, 190). What is important for Nietzsche is that the will to power is a drive to overcome, not that one can be driven to violence. This drive towards self-overcoming inspires us to be beyond what we are today, what we are this very moment. And for Nietzsche this is life affirming, which is one of his most esteemed aspirations.

In Twilight of the Idols we may identify Nietzsche’s admiration of overcoming, as well as his disregard for either a domineering ruler or a weak slave for others to rule. He writes, “How is freedom measured, in individuals[…] One would have to seek the highest type of free man where the greatest resistance is constantly being overcome: five steps from tyranny, near the threshold of the danger of servitude” (T1:Untimely Man:38). Here, Nietzsche explains that the highest man is one who must always overcome. He is close to servitude, but not a servant, because if he was a servant he would not be able to struggle to overcome; he would be crushed instead. But this man is also not a tyrant, because if he were a tyrant he would care only for what he acquired and not for his inner growth and personal strength. Nietzsche makes it clear here that the highest man, the freest man, is the one who is neither a tyrant dominating weaker beings nor a servant who cannot rule himself.

Not only does Nietzsche expect us to avoid becoming tyrants in the quest for power, but there comes a point where the strongest man can be more merciful and less harmful than we are today. In The Genealogy of Morals, Nietzsche discusses a society that is so strong it has no use for such notions as exploitation to the individuals within it:

It is not unthinkable that a society might attain such a consciousness of power that it could allow itself the noblest luxury possible to it—letting those who harm it go unpunished. […]This self-overcoming of justice: one knows the beautiful name it has given itself—
Nietzsche maintains here that the will to power may lead us to become so strong a society of individuals that we will not need to punish or harm others. He equates this act of “mercy” to “overcoming itself,” which is something he regards as beautiful. Following Kaufmann, we can say that such acts are part of Nietzsche’s ideal direction of the will to power since although “the will to power may be ruthless and a source of evil doing [...] power itself does not corrupt but ennobles the mind” (Kaufmann 1974, 194). Mercy, then, is one form of nobility. Thus, Nietzsche finds this expression of the will to power superior to an expression of strength derived from violence.

Although Nietzsche does acknowledge violence and domination as a form of the will to power, and even at times praises master morality as one of strength, I argue that this is only a descriptive tool for him. He uses this type of man to illustrate strength and counters it with those who embody weak wills. However, in the passages we have examined here, Nietzsche does not encourage us to be like these men, but like the overman. In such passages, he describes the overman as a stronger, more merciful, and braver being than the masters. Thus, I find that Nietzsche does not espouse cruel and violent affects that we would normally think of as horrible. Rather, he encourages us to be stronger than this and to aspire to become overmen, those who have no need or desire to dominate weaker men.

**Conclusion: Overcoming Moral Chaos**

Through the examination of Nietzsche’s works and scholars’ arguments on the subject, I find that Nietzsche does not fall into the problem of moral chaos through his philosophy of the will to power. In other words, Nietzsche does not propose violence, murder, or torture of others as a viable or worthwhile form of the will to power, and thus is not led to a chaotic society, where all individuals struggle solely for their own personal advancement by any means necessary. Instead, he inspires us to become overmen, who are individuals which have such attributes as strength, bravery, and manners, and who aspire to live in a society in which there may be mercy for others, not domination of them. Nietzsche here is advocating a society that is not chaotic or psychotic, but instead strong, merciful and always overcoming itself so as to advance its laws and its people. Its members will reach beyond revenge and punishment, and be able to have healthy conflict with one another. This is Nietzsche’s ideal society. It is formed by overmen, and therefore does not fall into the problem of moral chaos.

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**References**


**Endnotes**

1 I will use the following abbreviations for Nietzsche’s works: BGE: *Beyond Good and Evil*; GM: *On the Genealogy of Morals*; GS: *The Gay Science*; TI: *Twilight of the Idols*; WP: *The Will to Power*; Z: *Thus Spoke Zarathustra*

2 The overman is the free spirit who actualizes the drive towards self-overcoming, and lives his or her life authentically.

3 Nietzsche refers to *master morality* as the morality which endorses nobility, strength, and honor, and the domination of the weak. He contrasts this kind of morality with *slave morality*, the morality that espouses weak virtues such as vengeance, pity, and the herd mentality. See Essays 1 and 2 from the *Genealogy of Morals* and Chapter 9 from *Beyond Good and Evil* for Nietzsche’s assessment of these two moralities.
Guantanamo Bay Just Preventative Detention of Terrorist or a Fundamental Violation of Due Process?

MICHELLE CUBELLIS

In response to the terrorist attacks of 9/11, in October of 2001, the Bush Administration launched the “War on Terror,” an attempt to eliminate all terrorist threats to the United States. As part of this war, the Bush Administration began detaining individuals it believed were linked to terrorism. Instead of capturing these individuals giving them a trial to determine whether they were guilty or innocent, and either sentencing them or releasing them, the Bush Administration detained these individuals at Guantanamo. They were held without due process and without access to federal courts. The Bush Administration repeatedly claimed that it was within the rights of the President, as the Chief Commander during times of war, to dispose of due process rights and detain individuals for undetermined periods of time.

This study, funded by an ATP summer grant, examined the legal, political and policy questions raised by the “War on Terror”.

Methodology

This research was conducted using an exploratory and qualitative approach. The study looked primarily at the expansion of the Bush Administration’s power during the “War on Terror,” and how this impacted the constitutional rights of accused suspects. A set of case studies were used as a way to understand the real-life implications of the Bush policies. The case study approach “involves identification of one or more exemplary instances of the phenomenon under study and an in-depth analysis of the phenomenon and related factors” (Travis, 1983).

The selected case studies included the detentions of Murat Kurnaz, Moazzam Begg, and Omar Khadr. Each case study examined the detainee’s personal history, their arrest and detention, government claims of their terrorism activities, and when possible, independent assessments of the detainee’s guilt or innocence. Official government records were also used to clarify the status and detainment history of the detainee case studies. The case study approach was utilized as it provided a way to include all relevant factors while also providing enough information to explore the legal, emotional, and psychological effects of detainment. The case study approach is also useful as it allows one to view the links between certain factors, such as public opinion and government decisions, over time (Yin, 2008).
The study also reviewed major Supreme Court cases in assessing the constitutional rights of detainees. The research also reviewed how the Bush Administration adjusted to the constitutional constraints placed on it by the Supreme Court.

While this research did not include any quantitative data, a qualitative approach offered the most useful and insightful way to answer the question as to whether Guantanamo Bay served as a just form of preventative detention or was a violation of the due process rights of suspected terrorists. The limitations of this study include the subjective selection of the specific case studies, the lack of access to classified intelligence on detainees, as well as an underdeveloped examination of the unintended consequences.

**Military Commissions**

On November 13, 2001, President Bush issued an executive order directing Secretary of Defense Donald Rumsfeld to create and use military commissions to try suspected terrorists (Katyal & Tribe, 2002). This order allowed anyone to be arrested based on the belief of the President that the person aided, abetted, or committed an act of terrorism, or that the person is or was a member of a known terrorist group (Katyal & Tribe, 2002). With the creation of these military commissions, numerous historical and constitutional questions were raised about their legality. These procedures suspended the prisoners’ habeas corpus rights, or the right to challenge the legality of their confinement in court.

The order establishing military commissions allowed them to be conducted at any time or place (Katyal & Tribe, 2002). Only unlawful enemy combatants could be tried in these proceedings, a class of defendants that relies wholly on the discretion of the President. There is no mens rea requirement, or knowledge that one was aiding and abetting a terrorist organization, in order to be classified as an enemy combatant. This created a situation where those deemed to be enemy combatants could simply be innocent bystanders.

For example, under President Bush's order, a person who donated to a charitable organization not knowing that it was a front for providing assistance to a terrorist organization could be detained at Guantanamo Bay and tried in a military commission as an unlawful enemy combatant. This vagueness in determining who qualifies as an unlawful enemy combatant can lead to arbitrary and potentially discriminatory detentions (Katyal & Tribe, 2002).

**Supreme Court Decisions**

In 2002, with the creation of military commissions by the Bush Administration, came the question of whether or not this method of trying detainees held at Guantanamo Bay was constitutional. Since the creation of these commissions, the Supreme Court has ruled on their constitutionality several times. The following four cases, *Rasul v. Bush* (2004), *Hamdi v. Rumsfeld* (2004), *Hamdan v. Rumsfeld* (2006), and *Boumediene v. Bush* (2008), illustrated the Supreme Court's view that the actions taken by both President Bush and Congress violated the Constitution and the Geneva Conventions. In all four cases the Supreme Court affirmed the due process rights of prisoners held at Guantanamo Bay.

In *Rasul v. Bush* (2004), the Supreme Court ruled that detainees were protected under the Constitution and were entitled to petition for writs of habeas corpus. In opposition to the President, Justice Stevens outlined the court's view that the 1903 lease agreement (between the US and Cuba, creating Gitmo) maintained that Cuba had ultimate sovereignty over the area, but that during the time of the lease, the US had “complete jurisdiction and control over and within the said areas” (*Rasul v. Bush*, 2004). The majority opinion argued that the petitions of writ of habeas corpus did not apply solely to citizens, but instead all “persons” under the sovereign control of the US. Based on this principle, Stevens stated that both aliens and citizens held at Guantanamo Bay were entitled to habeas corpus rights (*Rasul v. Bush*, 2004). President Bush refused to follow this decision, leading the Supreme Court to again answer the question as to the rights of Gitmo detainees in *Hamdi v. Rumsfeld* (2004).

In 2001 at the age of 21, Yaser Esam Hamdi, a Louisiana native who moved to Saudi Arabia as a young child, was captured in Afghanistan by the Northern Alliance, a coalition of military groups opposing the Taliban, and turned over to US forces. Hamdi was brought to Guantanamo Bay and then was transferred to the naval brig at Norfolk, Virginia after it was discovered he was a US citizen. In 2004, Hamdi filed a petition with the Supreme Court, questioning whether the Constitution gave the President authority to indefinitely detain prisoners captured during armed conflicts without formally charging them. (O’Connor, 2008). On June 28 2004, in an eight to one vote, the Supreme Court ruled that US citizens held as enemy combatants could question the legality of their confinement in front of a neutral body (*Hamdi v. Rumsfeld*, 2004). Yet the Bush Administration did not relent.

The Supreme Court would again rule that the detainees were entitled to due process rights in *Hamdan v. Rumsfeld* (2006), and would go even further by ruling that the military commissions created by the President and Congress were unconstitutional.

In 2001, Salim Hamdan, a Yemeni national was captured in
Afghanistan. Hamdan served as Osama bin Laden's driver prior to his capture by Afghani warlords, and was transferred to Guantánamo Bay. On July 3rd 2003, President Bush issued an executive order declaring that Salim Hamdan would be the first detainee held at GITMO to be tried by a military commission (Mahler, 2008). In Hamdan v. Rumsfeld (2006), the Supreme Court ruled the military commissions created by President Bush were unconstitutional, as these hearings were completely controlled by the Executive branch and failed to uphold the system of checks and balances. Despite this and the previous rulings, the Bush policies were continued.

In Boumediene v. Bush (2008), the Supreme Court was again faced with the question of whether detainees held at Guantánamo were entitled to habeas corpus rights. The decision, authored by Justice Kennedy, answered the question as to whether aliens held at Gitmo had the constitutional privilege of habeas corpus. In a five to four decision, the Supreme Court ruled that the military commissions were an unconstitutional suspension of the writ of habeas corpus.

Despite the Supreme Court ruling four different times on this issue, the Bush Administration disregarded these rulings and continued to hold detainees at Guantánamo Bay without providing them with formal charges or access to the federal courts, until the end of their administration in January 2009.

Case Studies
The cases of three such detainees, Murat Kurnaz, Moazzam Begg, and Omar Khadr, are only a few examples of individuals being detained without due process and sometimes tortured at Guantánamo Bay. These three cases are just a few of the hundreds of instances where the elimination of due process rights led to the incarceration and punishment of innocent individuals.

Case Study #1- Murat Kurnaz
Murat Kurnaz was a nineteen year old Turkish citizen when he was captured in 2001 in Pakistan by Pakistani Intelligence officials. On October 3, 2001, Kurnaz flew to Pakistan in order to learn more about the Koran and Islamic faith (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo; 2007). On December 1st 2001, while attempting to pass through a checkpoint on his way to the airport in Peshawar, Pakistan, he was removed from the bus by Pakistani police. He was questioned by the Pakistani police about his citizenship and his purpose in Pakistan. A few hours later he was shackled, his head was covered with a sack, and driven to a Pakistani prison. He was kept in solitary confinement at the Pakistani prison in a six by nine foot cell that was constantly lit, had no furniture, and no bathroom (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo; 36-38, 2007).

Although he did not know at the time, he had been exchanged to the US forces for $3,000.00. He was taken to a transport plane where he was allegedly beaten by US soldiers. Kurnaz hoped that he was being flown to Turkey, but instead was flown to the military base in Kandahar, Afghanistan (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo, 2007).

While detained in Afghanistan, Kurnaz was continuously interrogated by US forces, who believed he knew where Osama bin Laden was. US personnel also believed that he knew Mohammed Atta, a key figure in the September 11th attacks (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo, 2007). In February of 2002, Kurnaz was transferred to Guantánamo Bay. While in Guantánamo Bay, prisoners, among them Kurnaz, were allegedly beaten by the Immediate Reaction Force (IRF), a team of armored soldiers who would brutally beat the prisoners for breaking rules. These rules created by the soldiers, were constantly changing, and were never made clear to the prisoners (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo, 2007). Despite accounts of detainees like Kurnaz, military lawyers stationed at Guantánamo Bay have claimed that detainees were treated humanely (Rotunda, 2008).

On August 24th 2006, after five years of detainment, Murat Kurnaz was flown to Ramstein Air Base in Germany and reunited with his family. Upon his release, US forces tried to have him sign a document confessing his membership in al Qaeda. Kurnaz refused. He had been arrested in Pakistan at the age of nineteen and was released from Guantánamo in 2006 at the age of twenty four (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo, 2007). It wasn’t until after he was released that Kurnaz discovered that in 2002 US forces had determined that he was not an enemy combatant, but had not released him because Germany refused to accept him (Kurnaz, Five Years of My Life: An Innocent Man in Guantánamo, 2007).

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During this time, the FBI, US intelligence, and German intelligence had all determined that he was not a terrorist and had no connection to terrorist groups. In a memo released by the US government, military intelligence officials stated that they had “no definite link/evidence of detainee having an association with al Qaeda or making any specific threat toward the US” (Intelligence, 2002).
The case of Murat Kurnaz is just one of many of the innocent detainees held at Guantanamo Bay. Kurnaz was denied his rights to due process, which if had been given to him would have ensured his speedy release. The Bush Administration had no evidence to support their detainment of him, but the President’s determination that due process protections did not apply to Gitmo detainees allowed an innocent man to be held at Guantanamo Bay for five years. The case of Murat Kurnaz is an example of the unconstitutional actions taken by the Bush Administration resulting from the elimination of due process rights.

The second case study of Moazzam Begg offers yet another example of the Bush Administration’s acceptance and approval of the wrongful incarceration of individuals at Guantanamo Bay.

Case Study #2- Moazzam Begg
On January 31 2002, 34 year old Moazzam Begg, a British citizen, was taken by US and Pakistani intelligence agents from his home in Islamabad, Pakistan. He was removed by the soldiers while his wife and children slept in the next room. He was handcuffed, his feet were bound with plastic zip ties, and his head was covered with a black hood. He was then taken to a Pakistani intelligence facility and held there overnight. What he believed had started off as a misunderstanding would soon turn into a nightmare as he would spend the next three years of his life in US custody as an unlawful enemy combatant (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006).

In October of 2001 after the US bombing of Afghanistan began Begg and his family were forced to evacuate to Islamabad, Pakistan. It was during this time, on January 31 2002, that he was taken into custody by US and Pakistani intelligence (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006).

After several days in custody, he was met by an FBI agent who informed him that he was being taken into US custody and would be transferred to the US prison in Kandahar, Afghanistan and then Guantanamo Bay, Cuba (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006).

In February of 2003, he was transferred to Guantanamo Bay (Gitmo). While in Gitmo, he alleged that he was held in isolation without any natural light for twenty months (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006). Prolonged ensory deprivation is a violation of the Geneva Convention.

On October 15 2004, Begg was transferred to Camp Delta and held with other prisoners. He claims that this was the first time he had seen another prisoner in two years. Here he learned that some other prisoners were allegedly soaked with water and then left in a room with the air conditioner on high. Other detainees described that they had seen other prisoners who had allegedly had their faced smashed into the ground. One prisoner had allegedly had his face smeared with menstrual blood during an interrogation (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006).

Then in January of 2005 Begg received some good news. He was informed that he was being transported into British custody and all the charges against him had been dropped. On January 25, 2005 he was flown to Great Britain. Upon his arrival he was immediately placed under arrest according to the U.K.’s Prevention of Terrorism Act. British authorities assured him that this was just a show to appease the US government. He was kept for one night and then reunited with his family (Begg, Enemy Combatant: My Imprisonment at Guantanamo Bay, Bagram, and Kandahar, 2006).

According to available declassified records, Moazzam Begg had no connection to terrorism, but despite this he was held by the Bush Administration for three years without access to legal counsel or the federal court system. While his experience may be different than that of Murat Kurnaz, the outcome of their ordeals is still the same. Begg was taken from his family in the middle of the night, held in prisons without access to legal counsel, and accused of crimes without the ability to challenge the accusations in court. Eventually he was released from his detention because of the negotiations of his government. Most of the detainees held at Guantanamo Bay are not as fortunate.

The final case study examines the youngest alleged terrorist at Gitmo, Omar Ahmed Khadr, a 15 year old Canadian national who was captured in Afghanistan in July of 2002. He is still held there today.

Case Study #3- Omar Ahmed Khadr
Omar Ahmed Khadr was a Canadian citizen born in Toronto, and grew up in both Canada and the Middle East. On July 27, 2002 at the age of fifteen, Khadr was taken into U.S. custody after being involved in a firefight between U.S. forces and citizens in Afghanistan. In January of 2006, Michelle Shepard, a Canadian Journalist, met with Khadr to chronicle his story as he had spent more than a quarter of his life in Guantanamo Bay (Human Rights First, 2009).

According to an investigation report by the Department of Defense’s Criminal Investigation Task Force, on July 27 2002,
U.S. Special Operations Forces in Afghanistan engaged in a firefight with individuals hiding in a dwelling. As a result, one soldier entering the house, Sgt. First Class Christopher Speer was killed by the blast. Upon further examination of the dwelling, Khadr was found alive, with two golf ball sized holes in his chest. The U.S. soldiers provided Khadr with medical attention and then transferred him to Bagram Air Force Base in Afghanistan (CITF, 2004).

Upon his capture, the Pentagon claimed that Khadr had received one on one training from al Qaeda in the use of Rocket Propelled Grenades (RPGs), rifles, pistols, explosives (Summary of Evidence for Combatant Status Review Tribunal- Detainee Khadr, Omar Ahmed, 2004). Khadr arrived in Bagram in July of 2002, and was considered a “dangerous detainee” by U.S. officials. Upon entering the base, Khadr was transferred to the hospital wing for treatment of his wounds. During the firefight, he had been shot two times in the chest, had received a head wound, and had been nearly blinded in his left eye (Shepard, 2008). On October 28 2002, Khadr was flown to Guantanamo Bay, Cuba. During the twenty seven hour journey, Khadr was allegedly forced into leg irons and handcuffs that were then attached to a waist chain (Shepard, 2008).

During his time in U.S. custody, Khadr had just turned sixteen years of age. Khadr was treated like an adult, despite his age, according to post 9/11 policy issued by the Pentagon outlining detainee treatment. The U.S. segregated three other child detainees, who were between the ages of thirteen and fifteen, but refused to treat Khadr like the fellow child detainees (Human Rights Watch, 2007).

While Canada and numerous other nations had ratified the UN Convention on the Rights of the Child, the U.S. never ratified it and refused to recognize Khadr as a minor (Human Rights Watch, 2007). The Conventions on the Rights of the Child, decided upon at the 1989 United Nations General Assembly, ensures that all children under the age of eighteen are to be protected from discrimination and punishment. It set out a list of guarantees to children who were believed to have broken penal law including the protection of being assumed innocent until proven guilty, to be informed of the charges against them, and to have the matter determined without delay (Convention on the Rights of the Child, 1989). None of these protections were given to Khadr.

Khadr was granted two military commissions, the second of which was scheduled for June 4, 2007. The second military commission has yet to commence. As of April 2009, Omar Khadr’s next hearing was rescheduled for June 1, 2009 to resolve any outstanding issues before beginning the trial (Parish, 2009).

Upon taking office in January of 2009, President Obama issued an executive order which called for the closure of Guantanamo Bay by January 2010. Along with the closure of Gitmo, President Obama suspended the military commission process and ordered the review of the cases against the 241 men held at Gitmo, including Khadr, in 120 days. The review was supposed to be concluded by May 20th, but the Obama Administration requested a three month extension to continue reviewing the detainee cases (Associated Press, 2009).

Since then, Omar Khadr, and all other detainees continue to be held at Guantanamo Bay. Much of the evidence in Khadr’s case is still classified. Given this difficulty it is unclear whether or not he is factually guilty of the crime of murder and terrorism. What is supported by the publicly available evidence is that Khadr was denied federal due process rights and the international protections of the Geneva Conventions and the UN Charter on the Rights of the Child. As serious as these charges are, it is incumbent on the Obama Administration to either provide Khadr access to federal courts or release him.

The constitutional rights of these detainees were violated by the Bush Administration. It is unclear how the Obama Administration will proceed. As a result, these individuals have been held, some as long as nine years, without being given the opportunity to refute the evidence the government believes proves their guilt. The basic principle of our criminal justice system, innocent until proven guilty, has instead been replaced by guilty without a fair opportunity to prove innocence. The question now remains, when, if ever, these detainees will finally be given their constitutional rights, and in many cases their freedom.

Conclusion
In 2001, the United States was attacked by terrorists, resulting in President Bush’s “War on Terror”. As part of this effort, President Bush decided that those individuals suspected of terrorism should be held by the U.S. without access to federal courts or the due process rights guaranteed to them by the Constitution. These actions were supported by Congress, as they had given the President unlimited power through the Authorization for the Use of Military Force passed on September 18 2001. Using this legislation as justification, the Bush Administration pursued a course of action which detained anyone the President determined posed a threat to the United States.

President Bush stated it was against the interests of national security to try these individuals in federal courts, and instead created military commissions to try them. These proceedings have been used by the U.S. during times of war in foreign nations...
where the court system was not open or functioning properly. By creating these proceedings, the Bush Administration eliminated the writ of habeas corpus, the right of prisoners to challenge the legality of their confinement, an action that had not been taken since WWII.

These military commissions were not designed to provide detainees with a fair and impartial trial, but were offered as silk screen behind which the Bush Administration could claim they were providing the detainees with due process rights.

In response to the claims of detainees that they were entitled to access to federal courts and claims that the military commissions were unconstitutional, the Supreme Court ruled in four different cases, Rasul v. Bush (2004), Hamdi v. Rumsfeld (2004), Hamdan v. Rumsfeld (2006), and Boumediene v. Bush (2008), that detainees were entitled to access to federal courts and that the military commissions created by the Bush Administration and later authorized by Congress were unconstitutional. President Bush ignored these rulings, continuing to deny detainees access to federal courts and using military commissions to try them.

With the election of President Obama in 2009, the question of how to deal with these detainees has been renewed. While President Obama ordered the closure of Guantanamo Bay by January 2010 upon taking office, little more has been done to provide the detainees with access to trials or release them. The Obama Administration still supports preventative detention, a policy under the Bush Administration that has been shown to be a fundamental violation of due process. The question now remains as to how these individuals will be dealt with under the new administration.

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Regional vs. Local Impact of Wind on Glaciers in the Andes Mountains

DEREK FERRIS

Northern Peru will face critical water resource issues in the near future as permanent ice in the Andes Mountains continues to rapidly melt. Ironically, the melt-water from these glaciers supports the culture of 100s of thousands of people living at lower elevations, particularly during the dry season, and predictions suggest some glaciers may be gone in less than 100 years. The impact of local warming of “U” shaped valleys running down the dryer western slope of the Andes range is largely disregarded in current climate model predictions because of the complexity of simulating the complex topography. Studies that compare the influence of regional and local warming factors are lacking, particularly in the Peruvian Andes. This project will use automatic weather station data within the Llanganuco Valley and archives of weather maps to determine the importance of local winds that funnel warm air up toward the glaciers.

1. Introduction

The Andes Mountains are located in western South America, most notably in the countries of Ecuador, Peru and Chile. Peru (Fig. 1a) is a nation facing critical water resource issues (Bradley et al., 2006). The area of focus for this project is the Llanganuco Valley, located in the Cordillera Blanca (White Mountains) in northern Peru. The steep, high-altitude topography creates sub-freezing temperatures above 5000 meters elevation and this leads to permanent ice cover (glaciers) in the highest portions of the mountains. The typical climate is warm throughout the year and distinct dry and wet seasons. The dry season, most dominant June, July and August, is their winter, and the wet season, in December, January and February, is their summer (Higgins, 2008). These glaciers essentially supply all the freshwater for agriculture and drinking during the dry season. Observed past increases in air temperature and changes in moisture have enhanced glacial melt in this portion of the world (Bradley, et al. 2002).

According to the World Bank, some lower altitude glaciers within the Cordillera Blanca could completely disappear within ten years. This is caused by a rapid increase in surface temperature. There are currently eighteen glaciers that exist in Peru, of which twenty two percent has been lost over the past thirty years. Glacial loss such as this is occurring across the globe (World Bank, 2008). The IPCC indicates as of 2007 that this glacial retreat is directly related to the increase in surface temperatures. Glacial retreat in the Peruvian Andes will have a profound affect on the water supply in surrounding cities.
of the Andes. The glacial melt water supplies citizens with their fresh water supply. The culture of northern Peru critically relies on water for survival, both directly and indirectly through agriculture and hydroelectric power generation (Bradley, et al. 2006). With the glaciers melting as rapidly as they are, there is a growing concern of a new source of fresh water for the next generation. A lack of fresh water limits a cities ability to maintain vital local economies (World Bank, 2008).

The freezing level height in the mountains of the tropical Andes is an essential part in understanding the hydrological cycle within the mountain range. Research has found that freezing levels have been rising over the past fifty years, which means, glaciers are retreating. This rise in freezing levels is directly related to a rise in sea-surface temperature (Bradley et al. 2009). This shows that melting is occurring in this mountain range, but understanding the dynamics of what is occurring within the valleys of these mountains may give an indication as to why these glaciers are rapidly melting.

Understanding the microclimate that may or may not exist within the valley is the goal of this research. Little is known of how this microclimate affects glacial loss in this mountain range because few weather instruments have been set up to accurately assess how microclimate is affecting glacial loss. Using Automatic Weather Stations (AWS) set up within the valley allowed a better understanding of how wind and other factors affect temperatures within the valley (Fig 1b). Measurement that were taken at these weather stations includes; air temperature, relative humidity, geopotential height, solar radiation, vertical winds (V-Winds) and horizontal winds (U-Winds). Information available through the National Center for Environmental Predictions (NCEP) provided a synoptic overview of temperature, winds, relative humidity and Geopotential height. Comparing the data gathered using both of these sources also provided a better understanding of the microclimate within the valley. Based on the evidence from the AWS and NCEP data, the microclimate that exists within the glacier could affect glacial loss in the Llanganuco Valley.

2. Methods and Results
After gathering AWS and NCEP data, interpreting the data and creating graphs was a pivotal point for this research. Graphs were produced in Microsoft Excel and were made to demonstrate the differences in the data acquired from AWS and NCEP. More specifically, time series, wind roses, and lapse rates (temperature profile).

A time series graph was produced to show changes in temperature over the courses of the dry and wet seasons. Figure 2a illustrates information from both AWS and NCEP.
comparing temperature and wind within the valley. In this case, temperature and vertical wind are observed during the dry season. There is a great daily change in temperature during the dry season as depicted with the green line. The NCEP data shows a less drastic temperature change during this period as shown with the purple line. The vertical winds, which are represented but blue (AWS) and Red (NCEP) lines also show differences in information. Figure 2a also displays an unusual event where the temperature and wind data from AWS conflicted with one another on June 28, 2005. Based on observing the data from the wind roses and information such as relative humidity, wind speed and solar input, it was determined that a weather system must have created a disturbance in the upper atmosphere creating this unstable pattern.

While these differences are not as drastic as the temperature differences are, the correlation with the temperature is different between the two data sources. The blue line and the green lines from AWS data correlate very well; when winds increase within the valley, so does the temperature increase. NCEP data shows differences within it’s own information. There is no direct correlation between its wind and temperature information, which may suggest that wind has no impact on temperature difference within the valley. Figure 2b shows the wet season comparison between temperature and wind. The changes in temperature during the wet season are less drastic but the correlation between the AWS data and the NCEP data did not change (Figure 2b). Time series graphs were also created for temperature and U-wind comparisons. Figures 2c and 2d also show the correlation in the AWS data and the inversely correlated NCEP data.

Wind Roses show differences in wind intensity and direction over the course of time. The wind roses that were created show the differences in wind speed and direction within the four time periods that we selected which were: 00Z (1900), 06Z (0100), 12Z (0700) and 18Z (1300). The time period that is of particular interest to this study is 18Z because it is the only time period observed during the day. Daytime weather systems are the most unstable systems throughout the day as shown in figure 4a-d. Figure 3 is an illustration of the daily cycle of winds in a mountain terrain (Whiteman, 2000). Figure 4a is a wind rose from data gathered from AWS during the dry season. Most of the strong winds during this period come from the northeast, while some of the lighter winds come from the southwest. This suggests that most of the time, wind from the bottom of the valley is blowing upslope and toward the glaciers. With an increase in surface temperature due to global
climate change, melting of glaciers could be enhanced due to winds bringing warmer air to the summit. Figure 4b is an exact opposite model of figure 4a. It shows very strong winds from the northeast which would bring cool air from the summit, down the valley. This could perhaps cause glacial expansion, which is not occurring in this mountain range.

Figures 4c and 4d are from the wet season. Information from AWS shows almost all wind comes from the southwest while NCEP shows that almost all wind comes from the northeast. The NCEP data contradicts figure 3, which suggests that winds go upslope during the day and downslope during the night. NCEP data could be suggesting that there is some event that occurs at high levels of the atmosphere that changes model predictions. But with the data collected from NCEP, winds coming from the northeast would cause glacial expansion. With evidence suggesting that glaciers are melting in this mountain range, one would suggest a better way of gathering data for NCEP. The AWS data, which was strategically set up at different areas of the valley leading up to the summit suggests that surface warming and up-valley winds are causing glacial loss.

Discussion
The results demonstrate that there is a disconnect between the regional and local scale winds. AWS data and NCEP data contradict what one another says. This could be an indication that there are unusual events much like the one on June 28, 2005 that occur often in higher levels of the atmosphere. Or, there could be problems with instrumentation for both data sources. The fact is, glaciers in the area are melting rapidly and based on the data acquired from both sources, it seems as though AWS is a more reliable source because based on this data, one can conclude that glaciers would melt, whereas, NCEP data would suggest a glacial expansion. There are many valleys located in the Cordillera Blanca to which this data could be applied. Every valley seems to have its own microclimate, so concluding that what data was found here is found at every valley in the Cordillera Blanca is false but some of the same principles apply, therefore melting in these areas may be occurring for the same reasons.

Conclusion and Future Work
More recent data within the valley has been gathered. Using this new information more can be determined about the current state of melting within the valley. More equipment could also be used; such as setting up weather instruments on the glaciers to show exactly how fast the glaciers are melting. This could give an exact timeline as to when the glaciers will completely disappear and alternate sources of water resources that can be found within that time period, if any. Unfortunately, because there is a lack of instrumentation in some areas of the tropical Andes, the consequences for people living in lowland areas may be directly affected both socially and economically (Bradley et al 2009). More could also be done to determine what impact the sun has on the valley. Knowing its exact position and the amount of radiation it emits on the valley is pivotal in understanding how radiation affects the valley. Any upgrades
in sensor information are helpful in the understanding of how and why this microclimate exists.

References


Solar Observations During a Solar Minimum Using a Small Radio Telescope

GARY FORRESTER

The Sun is currently in a quiescent phase called solar minimum. We used Bridgewater State College’s (B.S.C.’s) Small Radio Telescope (SRT) to observe solar radio emission during this quiet phase and correlated our data to solar X-ray data readily available through the National Oceanic and Atmospheric Administration (NOAA). Previous observations made during a period of high solar activity (solar maximum) using one of M.I.T.’s SRTs showed that some solar radio and X-ray events were correlated, while others were not. We made observations during solar minimum and found one event where there was a correlation between radio and X-ray emission.

Introduction

Radio astronomy is a very important aspect of astronomical observations. It accounts for 65% of all of observations made of our universe[6]. Many important discoveries have come from radio astronomy such as the cosmic microwave background, dark matter, quasars, pulsars, and detection of black holes. Because of their long wavelengths, radio waves are unimpeded by stellar dust and allow us to see the most distant objects and even peer through the dust of galaxies to see their inner structure.

Studies of radio emission from the Sun are particularly important because they give us some insight into the structure of solar flares. Solar flares can affect our infrastructure here on Earth. They have been associated with large-scale blackouts as well as satellite and GPS malfunctions. Solar activity has also been connected with our climate and could have a significant impact on our atmosphere.

The Sun is the nearest star to Earth. Information gathered about processes on the Sun helps us understand more remote, and often more exotic, stars as well. The Sun emits light in every wavelength in the electromagnetic spectrum – from gamma rays to radio waves. For our work, we focused on radio (lower energy) and X-ray (higher energy) emission from solar flares, and the mechanisms responsible for it.

The Sun cycles between high (solar maximum) and low (solar minimum) activity phases every 5 to 6 years; we are currently in an extended solar minimum. The last solar maximum occurred between 2000 and 2003, and solar physicists expect the next solar maximum to take place in 2012. Since

Gary is a recent graduate of Bridgewater State College with majors in Physics and Mathematics. His research was funded with a 2009 Adrian Tinsley Program summer grant under the mentorship of Dr. Martina Arndt of the Physics Department. This work was accepted for presentation at the 2010 National Conference for Undergraduate Research. Gary plans to study Astrophysics in graduate school.
the Sun is currently in a minimum phase we expect to see fewer flares, and while that leads to less radio and X-ray emission, it does reduce ambiguity about the location of the source of any emission we detect.

In our project, we observed radio flux from the Sun and compared it to NOAA X-ray flux data. This experiment was done in 2002, during solar maximum, at MIT’s Haystack Observatory and they found a strong correlation between X-ray and radio emission from several events. Our goal was to see if we could observe any correlated events during a 10 week period during solar minimum.

Solar Flares
A Solar flare is a sudden, swift, and intense variation in brightness on the Sun from a sunspot [7] and results when energy from the Sun’s magnetic field builds up and is suddenly released. These events have energies that are several hundred times the energy involved in a hydrogen bomb explosion[1]. Radiation from solar flares is emitted in every wavelength in the electromagnetic spectrum, from low energies to high.

While some flares are energetic enough to cause damage to satellites or even entire power grids [1], these events are rare, though not unheard of. So aside from studying the Sun to better understand physical processes going on in the universe, we have good reason to understand the star that has such an effect on us.

Solar Radio Emission
Radio emission from the Sun during a solar flare can be caused by gyrosynchrotron radiation. Gyrosynchrotron radiation[5][4] is the process in which non-relativistic electrons together with free protons and ions in plasma experience the Lorentz force and spiral around magnetic field lines. Gyrosynchrotron radiation is proportional to magnetic field strength and the orientation of that magnetic field, unlike X-ray emission processes. Many other processes such as cyclotron master radiation and plasma radiation can cause radio emission, but have not yet been seen to play a major role in the structure of solar flares[9].

Solar X-ray Emission
X-ray emission from the Sun is caused by many different processes. The process we are most interested in are non-thermal bremsstrahlung[4], also called braking radiation, and thick target radiation, or non-thermal free-free radiation. In this process, non-relativistic electrons, free protons and ions are smashed into a “thick target” (for our purposes the dense plasma on the surface of the Sun). This process will only produce Hard X-rays (greater than 10 KeV) and perhaps low energy gamma rays. X-ray emission from the Sun is also caused by thermal bremsstrahlung and coherent plasma radiation, but these processes have not been shown to be correlated to radio emission from solar flares.

Correlation between Radio and X-ray Emission
It may not be immediately obvious why there could be a correlation between radio and X-ray emission – what single process could produce both low and high energy emission at the same time? It turns out that there are multiple processes that utilize the same pool of non-relativistic electrons populating a solar flare. An electron gyrating around a magnetic field line that spans two sunspots in a flaring region causes the radio emission, and when this electron then smashes into the surface of the Sun, it produces X-ray emission (Figure 2) [3][5]. Most correlation between radio and X-ray emission takes place in very energetic solar flares, however some correlations have been observed in micro flares which are flares with energies about one millionth that of a regular flare[5].
METHODOLOGY

The Small Radio Telescope

BSC’s Small Radio Telescope (SRT – Figure 3), has a 2.3 meter dish, and is housed on the roof the Conant Science Building. It was developed at M.I.T’s Haystack Observatory in Westford MA as an undergraduate research tool and measures radio flux in the L-Band (1.42 GHz) [11]. We started our project by observing the Sun at 1420 MHz, but then switched to 1415 MHz so our data would be consistent with previous observations made at MIT.

The SRT takes observations by measuring the power received, which is proportional to the temperature of the source, and comparing it to the power output of an internal resistor, which is proportional to antenna temperature (or the temperature measured at the resistor[6].) The ratio of the power from the source and the power output of the resistor is proportional to brightness temperature of the source. So, in short, the SRT measures the intensity of the radio emission from a source and converts this signal to the brightness temperature, reported in Kelvin. The details of this conversion are worked out below.

First Planck’s law is used to infer the brightness temperature of a source:

\[ B_v(T) = \frac{2\pi^3}{c^2} \frac{1}{e^{h\nu/kT} - 1} \]

Where \( B_v(T) \) is the Brightness temperature with respect to a frequency, \( \nu \) is the frequency, \( h \) is Planck’s constant, \( k \) is Boltzmann’s constant, \( T \) is the physical temperature in Kelvin, and \( c \) is the speed of light. Integrating over all frequencies,

\[ B(T) = \frac{2h}{c^3} \int_0 \frac{\nu^3}{e^{h\nu/kT} - 1} d\nu \quad (1) \]

We find:

\[ B(T) = \frac{2h}{c^3} \left( \frac{kT^4}{h} \right) \left( \frac{\pi^4}{15} \right) \]

If we condense all the constants into \( \sigma \), equation (1) becomes:

\[ B(T) = \sigma T^4 \quad (2) \]

Equation (2) states that the brightness temperature of a source is proportional to its actual temperature.

Now we convert the brightness temperature \( B(T) \) to power measured in the resistor in the SRT. The basic definition of power is
\[ \text{Power} = VI = I^2R = \frac{V^2}{R}. \quad (3) \]

Where \( V \) is potential difference (voltage), \( I \) is current, and \( R \) is resistance. The power in the resistor in the SRT will be reduced by a factor of 1/2 because of the polarization of the dish, which means that the receiver is only collecting half of the power provided by the radio waves, and another 1/2 by taking the time average of \( V \), which accounts for how voltage we measure varies with time, so equation (3) is now:

\[ P = \frac{V^2}{4R}. \quad (4) \]

A random walk analysis is a mathematical model that can be used to approximate the fluctuations in the voltage \( V \). If we apply a random walk analysis to \( V^2 \), we find:

\[ V^2 = 4RkT_s. \]

Where \( T_s \) will now be used represent brightness temperature. Substituting \( V^2 \) into equation (4) we find:

\[ P_{\text{source}} = kT_s \quad (5) \]

The power provided by a radio source is given[6]:

\[ P_{\text{RadioSource}} = \frac{SA}{2}. \quad (6) \]

Where \( S \) is the signal strength in Jansky, \( A \) is the area of the telescope, and factor of 1/2 because we measure only left or right polarization.

The change in temperature at the resistor is proportional to the ratio of the power from a radio source and the power at the output of the resistor[10].

\[ \Delta T = \frac{P_{\text{RadioSource}}}{P_{\text{Resistor}}} \]

The software provided with the SRT does these calculations for us and reports the temperature of the radio source in Kelvin. Plotted as a function of time, these data show the daily radio flux of the Sun.

X-ray Data

The National Oceanic and Atmospheric Administration (NOAA) has dedicated several Geostationary Operational Environmental Satellites (GOES) to solar and space weather observations. GOES-10 is, along with other operations, dedicated to looking at the Sun and measuring the X-ray flux at .05-.04 nm and .1-.8 nm wavelengths with 1 and 5 minute resolutions. These data are available free to the public via the NOAA website. GOES-10 was scheduled to be decommissioned in December 2009 because its propulsion fuel will have run out. NOAA has not yet announced which GOES satellite will take over the solar X-ray flux monitoring duty.

Analysis

Daily data analysis was done by comparing the radio flux obtained from the SRT and the GOES-10 X-ray 1 minute average data in Excel. B.S.C.’s weather station, which measures the flux from the Sun in the visible spectrum, provided data that were used to account for intensity fluctuations due to atmospheric interference.

Results

For each day we made observations, radio data from the SRT and X-ray data from NOAA were plotted in Excel as a function of time.

![Figure 4: May 28, 2009 Radio activity with little to no X-ray activity.](image-url)
Figure 4 is an example of a day where there was radio activity (notice the spike at 17:30) and little or no X-ray activity. The radio activity on this day could be attributed to micro flares, which are happening all the time on the Sun\[3\]. However it could also be explained by the presence of heavy thunderstorms in the region. On several days observations showed that there was X-ray activity but no radio activity as shown in Figure 5. The reason for this X-ray activity absent of radio activity could be because the mechanism for the energy release was something other than non-thermal bremsstrahlung such as synchrotron radiation or plasma radiation. If this is the case then there would be no expectation of a radio correlation.

The data also show small fluctuations at the beginning and end of the day, a signature that appeared during the same time period each day we observed. We concluded that these fluctuations were not due to variations of the Sun but rather terrestrial interference or issues related to the SRT.

The rise in fluctuation intensity during the middle of every day – the overall “hump” – is also evident in each daily observation. When the SRT data were compared with B.S.C.’s weather observatory, which measures the Sun's intensity in the visible spectrum, we found that both spectrum intensities peaked in the middle of the day. This correlation suggests that when the Sun is lower in the sky, radio wavelengths – as well as visible - are being attenuated as they propagate through more atmosphere. Another explanation for this “hump” could be that the SRT heats up as the Sun gets higher in the sky, and the heat generated by the electronics could increase the gain in the receiver, resulting in a rise in intensity.

Because of these issues, we chose to narrow our search for correlated events to between 10 AM and 2 PM. Any events detected during this time frame were not affected by the “hump” since the events are over a time scale where there is no significant change in the background emission.

Of the 21 days we recorded activity, 5 showed X-ray events only, 5 showed radio events only, and 11 days had both X-ray and radio events – though only one of those events, a solar flare, had correlated X-ray and radio emission.

Because the Sun is in solar minimum, we did not expect to observe many solar flares, however we were fortunate to observe one. NOAA detected a C1 class solar flare at 16:59 on Day 187 Universal Time emerging from sunspot 11024. This sunspot also erupted with a C2-class flare the previous day, but our SRT was not making observations during the event. The NOAA classifies solar flares by their peak energy output in the 1-8 Angstrom spectrum. A C-class solar flare is classified as such because its peak energy is between 1 and Watts/m². This was a C1 flare because it had the lowest output energy possible to be defined as a C-class flare.

The radio and X-ray data for this event are shown in figure 6. At the impulsive phase of the flare, we see a peak in radio, followed by a peak in X-rays, indicating that the electrons in the flaring region were rotating around magnetic field lines first, then accelerating into the solar surface, producing X-rays. After the impulsive phase in both energies, there is prolonged radio emission even after the X-rays decay. This suggests that perhaps more electrons were ejected from the solar surface and subsequently rotated around the magnetic fields for an extended period of time.
In 2002, MIT’s SRT was used to observe the Sun during solar maximum, and they observed six correlated events. Figure 7 is an example of one such event[11]. Notice the small intensity rise in radio just before the peak in X-ray, similar to what we observed in figure 6. Note that the radio data at 327 MHz was recorded by Haystack Observatory’s 37 meter radio telescope.

**Discussion and Conclusion**

We observed the Sun during solar minimum and did not expect to observe many flares. However, we hoped that if we did observe a flaring event, we could also observe correlated emission between radio and X-rays. Fortunately, we did.

The correlated emission from the C-class flare on July 6, 2009, suggests that non-thermal electrons were gyrating around magnetic field lines and impacting the solar surface. For those events where only X-ray emission was detected, it is likely that the population of electrons responsible for the X-ray emission were not non-thermal, and therefore would not produce radio emission in ranges detectable by the SRT. Those events where only radio emission was detected could be due to micro flares, which are solar flares with much less energy and no X-ray component[3][5]. Another possibility is that they are just coincidental fluctuations due to normal solar activity.

With this work, we were able to show that we can observe solar flares with B.S.C.’s SRT, and that the one flare we observed did in fact correlate with X-ray emission. Our results suggest that if we continue to monitor the Sun as we head into solar maximum, we have the ability to observe more solar flares. We also observed small radio events with no X-ray correlation, events which were observed with MIT’s SRT during solar maximum. These events are intriguing, possibly due to micro flares, and may be the basis for future work.

**Acknowledgments**

I would like to thank my mentor Dr. Martina Arndt for all of her expertise and guidance during this project. I would also like to thank Dr. Phil Shute for providing assistance with the operation of the SRT; Dr. Rob Hellstrom for providing the solar radiation data from the B.S.C. Weather Station; Jim Munise for help with setting up the SRT, and M.I.T. Haystack Observatory. I would also like to thank the Adrian Tinsley Program for giving me this great opportunity.

**References**

“Double Consciousness” and the Racial Self in Zitkala-Ša’s American Indian Stories

BRITTA GINGRAS

In 1903, the African American intellectual and political figure W. E. B. Du Bois, in The Souls of Black Folk, introduced the concept of double consciousness. Du Bois defines double consciousness as the struggle African Americans face to remain true to black culture while at the same time conforming to the dominant white society. Du Bois writes, “It is a peculiar sensation, this double consciousness…one ever feels his two-ness, an American, a Negro; two souls, two thoughts, two un-reconciled strivings; two warring ideals in one dark body, whose dogged strength alone keeps it from being torn asunder” (Du Bois 2). Over one hundred years later, double consciousness is no longer limited to the lives of African Americans. Various ethnic Americans experience this split in consciousness while attempting to merge their specific cultural heritages with the values of dominant white society. By providing a representation of society through its characters and their interactions with the world around them, literature has been an important tool in the exploration of double consciousness. Zitkala-Ša’s American Indian Stories depicts the Native American experience with double consciousness. This essay explores the ways in which American Indian Stories displays the shift in race-thinking that has taken place over the past 100 years.

In order to illuminate the presence of double consciousness in American Indian Stories, a clear understanding of the theory of double consciousness is necessary. Du Bois scholar Rutledge Dennis breaks double consciousness down into three main components. He first argues “that the American world ‘yields’ to blacks no true-self consciousness” (Stone and Dennis 16). This holds America accountable for African Americans’ clouded perception of themselves. The second component, Dennis argues, is “that blacks always see themselves through the eyes of others” (16). African Americans are torn between the way they see themselves and the way they are seen by others. Their identities become fragmented as a result of this struggle. The third component is, according to Dennis, that “there exists an eternal and unreconciled two-ness (two thoughts, two souls, two warring ideals) within the collective black population” (16). By conforming to the expectations of whites, African Americans split themselves into two different selves.

A number of important scholars have used double consciousness as a model from which to build their own theories of racial identity. In Against Race, Paul Gilroy uses W.E.B. Du Bois’ original proposition of double consciousness to urge individuals to abandon race-thinking all together. He argues, “The
modern times that W.E.B. Du Bois once identified as the century of the color line have now passed” (1). Gilroy reflects on the shift in race-thinking that has occurred over time. Gilroy’s Against Race “considers patterns of conflict connected to the consolidation (increasing of strength) of culture lines rather than color lines and is concerned, in particular, with the operations of power, which, thanks to ideas about ‘race,’ have become entangled with those vain and mistaken attempts to delineate and subdivide humankind” (1). Although I will not be arguing for the abandonment of race-thinking all together, I will be exploring the shift in race-thinking that Gilroy proposes.

Like Paul Gilroy, feminist scholar Linda Alcoff recognizes the changes in the color-line and the obsolescence of thinking in terms of strictly “black” and “white.” Alcoff states, “If W.E.B. Du Bois were alive today, he would probably tell us that the problem of the twenty-first century will prove to be the lines between communities of color, or the questions of cross-ethnic relations. Coalitions across these communities are as critically important today as they are difficult to maintain” (247). Alcoff uses the “belief that the formation of identity does not fit into the two separate categories that ‘double consciousness’ proposes” as a central focus of her examination in Visible Identities: Race, Gender, and the Self (42). She stresses the importance of understanding the ways in which the interpretation of race will differ across generations and political communities. In her discussion of the black/white binary, Alcoff criticizes those who define race exclusively based on color, “as if color alone determines racial identity and is the sole object of racism” (256). This leaves racial and ethnic groups unable to “define their own identity,” since identities are chosen for them by American society (255).

In American Indian Stories (1921) Zitkala-Ša discusses the “two-ness” she faces when interacting with a world in transition. Zitkala-Ša, a Sioux woman and early Indian author, captures life as a Native American child who leaves her native life behind to pursue an education from missionaries in the East. She is torn between two cultural identities—her native identity and her “white” identity. She writes, “Even nature seemed to have no place for me. I was neither a wee girl nor a tall one; neither a wild Indian nor a tame one” (69). The protagonist experiences double consciousness, but when she feels alienated from the native world and the “white man’s world,” she begins to occupy a “third world” in which she signals the inadequacy of “double consciousness.”

Zitkala-Ša’s American Indian Stories was published in 1921, eighteen years after W.E.B. Du Bois’s The Souls of Black Folk appeared. Her collected works of autobiographical tales and shorts stories, based on her own family traditions, demonstrate the “double consciousness” that Du Bois proposed earlier. In The Souls of Black Folk, Du Bois explains, “The history of the American Negro is the history of this strife—this longing to attain self-conscious manhood, to merge his double self into a better and truer self. In this merging he wishes neither of the older selves to be lost” (2-3). Zitkala-Ša’s American Indian Stories demonstrates this construction of the self as it applies to the Native American identity. Zitkala-Ša’s American Indian Stories show the ways in which double consciousness affects the protagonist as she struggles to attain a sense of selfhood.

In American Indian Stories, young Zitkala-Ša is taken away from her family and brought to a boarding school partially funded by the United States federal government. In the introduction to Boarding School Blues, Clifford E. Trafzer, Jean A. Keller, and Lorene Siquoc describe the boarding schools as a “successful failure” developed by “Non-Indian policy makers and administrators” (1-3). Captain Richard Henry Pratt established the Carlisle Indian Industrial School in Carlisle, Pennsylvania, with the financial assistance of the federal government. The goal of the boarding schools was to place Native American children into an educational system that would guide them in assimilating into white society: “Pratt planned to destroy what he termed ‘savage languages,’ ‘primitive superstitions,’ and ‘uncivilized cultures,’ replacing them with work ethics, Christian values, and the white man’s civilization” (13).

Native Americans were forced to adjust to a new environment in order to fit America’s vision of civilization. The first step in this transformation was to seize the children’s possessions and alter their physical appearances by cutting their long hair. School officials even provided the students with new “white” names. The institutions followed a rigid military setup that included school uniforms, communication through military terminology, strict daily schedules, and marching through the hallways. Despite the language barrier between the teachers and the students, the children were educated in English. This barrier led to resistance from the Native American children. Despite their greatest efforts, the institutions were unable to strip them of their native identities:

School officials attempted to peel away layers of Indian identity, working from the outside into the hearts and minds of Native American children. The outward transformation occurred immediately as Indian children lost their clothing and hair, but the inner deconstruction of Indian identity proved a much more complicated task, often impossible. (Trafzer et al. 17)

Zitkala-Ša provides a firsthand account of the fragmented identity Native American children faced during this attempted integration.
Zitkala-Ša's childhood as a young Dakota girl growing up on an Indian reservation is documented in the first half of American Indian Stories. When her older brother returns from a three year education in the Northeast, Zitkala-Ša decides that she wants to receive an education in the East as well. Her mother is initially reluctant to subject her daughter to “the white man’s lies” (23). In “‘The Ears of the Palefaces Could Not Hear Me’: Languages of Self-Representation in Zitkala-Ša’s Autobiographical Essays,” Mary Paniccia Carden argues that Zitkala-Ša uses her mother’s voice to condemn the white intrusion. Carden points out the mother’s suggestion that “white education is among the factors eroding the ground of ‘real Dakota’ identity” (130). It is the mother that instills the fear of the white man in both her children and the reader. Her mother advises her, “Don’t believe a word they say! Their words are sweet, my child, their deeds are bitter” (Zitkala-Ša 23). Despite her reticence, she understands that her daughter needs an education. She considers this opportunity long overdue as compensation for the injustices the Native Americans have faced because of the whites. She fears that her daughter will become a tool in the white man’s “experiment” (25). It is the relationship between the mother and daughter that reflects the double consciousness Zitkala-Ša experiences. As Carden argues, “Her distance from her mother is the measure of her distance from her young Sioux self; her immersion in American culture estranges her from the Sioux culture embodied by her mother and evacuates mother-daughter communication” (Carden 131). Zitkala-Ša’s awareness of the two worlds she is split between deepens through her interaction with her Native mother.

Zitkala-Ša’s interaction with the white world at the boarding school deepens the awareness of her double consciousness as well. Upon leaving her home on the reservation and traveling to the boarding school in the East, Zitkala-Ša immediately experiences a conflicted identity: “I was in the hands of strangers whom my mother did not fully trust. I no longer felt free to be myself, or to voice my own feelings” (25). She already recognizes a change in herself. Even the train ride on the way to the school proves to be a discouraging experience. The children of the “palefaces” stare at her, while pointing at her moccasins. This behavior is unacceptable in the Native American world, and makes the protagonist extremely uncomfortable. Once she arrives at the school, the social atmosphere is emotionally draining for the young girl. A paleface woman tosses her in the air. She is shocked by this interaction, commenting that her mother would never treat her like a “plaything” (30). Sandra Kumamoto Stanley evaluates the effect the conflicting cultures have on the young girl’s character: “Imposing one set of values and erasing another, the missionaries impose a whole system of signification which the child Zitkala-Ša cannot decode and, as such, one in which she cannot situate the self” (67). Many aspects of the white world leave her confused and frustrated. When the missionaries cut her hair, she is humiliated and saddened. She exclaims, “Among our people, short hair was worn by mourners, and shingled hair by cowards!” (33). She cannot understand why they are cutting her hair, nor do they bother to explain their intentions. Zitkala-Ša is forced to erase a part of herself in order to gain acceptance in the dominant culture.

After attempting to transform her outer self, the missionaries move on to her inner self. She is forced to learn the white man’s language and is able to speak only broken English within a year. However, her comprehension of the English language triggers resistance as well: “As soon as I comprehended a part of what was said and done, a mischievous spirit of revenge possessed me” (36). Her Dakota self and her “white” self are never far from each other. Her time spent at school leaves her seeing-sawing between conformity and rebellion. Young Zitkala-Ša is aware of the effect the education has on her. “It was next to impossible to leave the iron routine after the civilizing machine had once begun its day’s buzzing; and as it was inbred in me to suffer in silence rather than to appeal to the ears of one whose open eyes could not see my pain, I have many times trudged in the day’s harness heavy-footed, like a dumb sick brute” (41). Her fluctuation between her native self and the “white” self being imposed upon her leaves her torn between two identities. Carden argues, “Taken in hand as an object, she experiences the dissolution of the boundaries marking her sense of individuality. She loses control of the signifiers of identity inscribed on her body as she is surveyed, marked, and forced to comply with white cultural norms” (130). As Du Bois’ description of double consciousness suggests, by conforming to the expectations of white society, she is divided into two different selves.

Her suspension between two worlds continues when she returns home to the reservation after spending three years at boarding school. The teenage Zitkala-Ša feels alienated from her mother, who is unable to console her educated daughter. She writes, “Even nature seemed to have no place for me. I was neither a wee girl nor a tall one; neither a wild Indian nor a tame one” (42). She discovers that she doesn’t feel like she belongs in either world. She rebels against the act of assimilation, exclaiming, “I will not submit! I will struggle first” (33). Her inability to fit in either world leaves her feeling alienated. Stanley suggests, She must face the fact that she is a representative of both—the ethnographic self and the radical other… Zitkala-Ša’s work escapes the easy binary opposition in which the self is pitted against the other, the minority voice against the dominant culture. For finally, the self is a site of continual displacement, in which multiple voices must interrogate cultural presuppositions. (67)
This suggests that, although American Indian Stories reflects "double consciousness" in many ways, Zitkala-Ša's identity is more fragmented than the binary theory proposes.

The protagonist's shifting identity is enhanced during her adult years. Zitkala-Ša eventually becomes a teacher at the Carlisle Indian Industrial School, founded by Captain Richard Henry Pratt. Her position at the school continues her integration into the white world. She confesses, "I made no friends among the race of people I loathed. Like a slender tree, I had been uprooted from my mother, nature, and God... Now a cold bare pole I seemed to be, planted in a strange earth" (62). She reminds her readers of the difficulties of erasing the Indian identity that Trafzer, Keller, and Siquoc spoke of in Boarding School Blues. Despite her residency in the white world, her native roots are still intact. Stanley analyzes the "double veil" that Zitkala-Ša wears as a Native American and an "assimilated" American: her sense of private dislocation is now transferred onto the communal sphere; for her Native American community also exists in the "in-between" space of a hybrid culture, caught in the "double veil" of being Yankton Sioux and enculturated Americans. But in this cultural site of contestation and negotiation, Zitkala-Ša, in mastering, rather than rejecting the "white man's" discourse, acts as an agent for political and social change. Thus, her sense of cultural dislocation gives her the opportunity for relocating and reconceiving cultural identity. (Stanley 68)

Through her fragmented identity, she embraces her cultural hybridity. Zitkala-Ša serves as an "intermediary" between the "white and Sioux cultures" (Carden 127). She is bound to both cultures, but remains loyal to her native identity. Her experiences with the white world produce feelings of pride and appreciation toward her Native American background. She refuses to disappear into white society, as assimilation demands of her. Instead, she uses her occupancy between two cultures to challenge the boundaries of cultural identity.

While both W.E.B. Du Bois and Zitkala-Ša experienced the ambiguity of racial identity during the late 19th and early 20th centuries, Zitkala-Ša's American Indian Stories already began to challenge the binary notion of double consciousness. Her attempt "to merge [her] double self into a better and truer self" supports Du Bois' theory in many ways, but it also demonstrates the complexity of race and the difficulties of breaking it down into distinct categories (Du Bois 2-3). Zitkala-Ša uses her experiences of double consciousness to expose the identity politics present in America and to initiate change. Her inability to allow the process of assimilation to erase her native self only strengthens the feelings of displacement that she possesses. Rather than giving in to society's ideal of possessing only one identity, she accepts her multiple selves and rejects white society's attempt to mold her into its own vision of civilization. Zitkala-Ša develops a "better and truer self" in true Du Boisian style.

It is important to trace the patterns in race-thinking over time, in order to understand the ways race-thinking has changed. By exploring the fragmentation of identity through literature, readers will realize that the color line is blurred, rather than divided into two distinct categories. Society has developed a more complex understanding of race and ethnicity over the past 100 years, and the beginning of this understanding is demonstrated in Zitkala-Ša's American Indian Stories. The significance of this development is to pay homage to different races and ethnicities, just as Zitkala-Ša paid homage to W.E.B. Du Bois.

References


The Visions of Lena Younger created by Lorraine Hansberry in
*A Raisin in the Sun*

 **LIZANDRA GOMES**

This is one chapter of a full Honors’ Thesis entitled “The Visions of Women Created by Three Major Female African American Playwrights of the Twentieth Century: Georgia Douglas Johnson, Lorraine Hansberry, and Suzan-Lori Parks”. This chapter addresses the vision of Lena Younger created by Lorraine Hansberry in *A Raisin in the Sun*. It analyses the vision of African American women emerging through the character of Lena Younger, during the Civil Rights Movement by employing traditional dramaturgical methodology, including facets of Literary Structural Analysis, and Stanislavskian Analysis. This study in its whole will, thus, demonstrate how the self-perceived image of African American women changed over time, in particular, during the Twentieth Century, in American History.

1. Analysis of Mama in *A Raisin in the Sun*  

 **LENA YOUNGER**

“What happens to a dream deferred? Does it dry up like a raisin in the sun? Or fester like a sore- And then run? Does it stink like rotten meat? Or crust and sugar over- Like a syrupy sweet? Maybe is just sags like a heavy load. Or does it explode?”  

- Langston Hughes, *A Raisin in the Sun* (6)

Lorraine Hansberry’s character of Lena Younger, known as Mama in the 1959, New York Drama Critics Circle Award—winning *A Raisin in the Sun*, embodies one of the most important and interesting visions of women among all her plays. The character of Lena Younger is a result of several images of Hansberry’s female protagonists. These images were created during the 1950s to “fight” stereotypes created by both white and some African American playwrights alike, who conformed to standards accepted in the American stage before the 1950s. Prevalent stereotypes in playwriting presented African American female characters as “immoral, promiscuous, wanton, frigid, overbearing, or pathetically helpless” (Brown-Guillory, 28) limiting perception of African American women.

Lena Younger is a middle-aged black woman, who is the head of the Younger household. She is a mother of two, Walter Lee and Beneatha, as well as a grandmother of one, Travis, the son of Walter Lee and Ruth. Pamela Loos, in
her study A Reader's Guide to Lorraine Hansberry's A Raisin in the Sun, notes that Hansberry provides an image of Lena Younger as “a determined fighter” (Loos, 51). Lorraine Hansberry herself described Lena Younger in the following way:

Lena Younger, the mother, is the black matriarch incarnate, the bulwark of the negro family since slavery, the embodiment of the Negro will to transcendence. It is she, who in the mind of the black poet scrubs the floors of a nation in order to create black diplomats and university professors. It is she, while seeming to cling to traditional restraints, who drives the young on into the fire hoses. (as cited in A Reader's Guide, 51)

This passage offers an overview of the vision of woman arising out of the character of Lena that further analysis can support and elaborate. It also provides a guiding force and good starting point for the vision of women that has emerged through this analysis.

As laid out in the introduction of this study, the analysis of the character of Lena Younger will incorporate three components of Literary Structural Analysis, beginning with the World of the Play. In A Raisin in the Sun, we are presented with the Younger family, a poor, Christian family who lives in Chicago's Southside, sometime between World War II and 1959 – the early days of the Civil Rights Movement. The five Younger family members live in a two-bedroom apartment, where they share a bathroom down the hall with other families in the building, “in an over-crowded black ghetto” (Gordon, 122). The house was once filled with furniture which was selected by Lena with love and pride but now is old and worn. Among the four adults in the family only Lena, Ruth, and Walter are currently employed and financially assisting the family's needs, while the younger members of the family, Beneatha and Travis, go to school. Lena and Ruth work as housekeepers and Walter Lee earns his living by serving as a driver for wealthy people. Throughout the play, the Younger family waits for an insurance check coming from the deceased Mr. Younger's life insurance policy. Overall, we can see this is a world of poverty during the early Civil Rights Moment. The Younger family lives in the suburbs of a city where the reality of segregation is not hidden and during a period of time when people either assimilate or segregate themselves from other groups. The Younger family is a poor, but hard-working one. Already, even the world of the play shows that women work hard to help the family economically.

The next component of Structural Analysis to be addressed is Imagery. Through analysis it becomes clear that the major imagery groupings can be defined as control/dominance, nurturance, family destruction, ambition/hopes/dreams, poverty, religion, new world, and memories/reminiscence. The table right demonstrates these major groupings with specific examples.

There are significant imagery groupings that contribute or suggest the vision of woman illustrated by the character of Lena such as control/dominance, memories/reminiscence/past, religion/morality, old order, and poverty. Interestingly, these three groupings of control/dominance, old order, along with religion/morality suggest a woman who is rooted in the past and who deeply guides her life and her family's life by the rules of Christianity, further pointing to a dominating mother. These same imagery grouping categories along with “poverty” suggest a woman who thinks and speaks in the language of her generation, which limits her perception and understanding of the new generation that has been emerging, making the relationship that she has with her children to be a controlling one. On the other hand, the imagery groupings of ambition/hopes/future/dreams, determination, along with freedom suggest a woman who, even though is surrounded by poverty in all its negative connotation, is a nurturing mother and is determined to raise her family out of the poverty that surrounds them. Overall, the imagery groupings suggest a woman who is strongly connected to her past and who guides her life and her family's life by the rules of Christianity. These imagery groupings also suggest Lena as a nurturing woman who works hard to maintain her family while trying to live by the rules of a “good Christian”, with the hope that her family will have a better life in the future.

The Imagery with the World of the Play gives a vision of a woman who holds on to her past in an old-fashioned manner at times; however because of the poverty of Southside Chicago in which she lives, she is determined to raise her family out of it. These two components also suggest a woman who will do everything in her reach to raise her family out of their poor community.

The third component of Structural Analysis to be analyzed is Character Relationship Functions. This study will evaluate only the major relationships Lena engages in with other major characters and will not consider those with secondary characters, in particular the characters who are not members of the Younger family.

With respect to her natural children, as well as her daughter in law and her grandson, Lena Younger, generally, functions within a parent-child relationship. However this relationship operates differently with each child. Lena's relationship with Walter goes beyond the obvious function of parent-child as it also
functions as abuser-abused. For example, and most obviously, Lena physically attacks Walter once she learns that he has lost part of the insurance money. Further, when she contradicts Walter’s instruction given to his son, Travis, to leave the room while Walter is selling the new house, she takes advantage of the situation. Not only does she contradict Walter’s decision once again, but also threaten him psychologically by allowing Travis to remain in the presence of her decision making, thereby under-mining Walter’s parental power.

On the other hand, Lena functions in a dominating-dominated relationship with Beneatha, Lena’s natural daughter. Lena illustrates several degrees of dominance. First, Lena demands Beneatha to be quiet several times in the play, such as in the scene where Ruth, Beneatha, and Lena are having a conversation and Beneatha starts calling her brother, Walter, names. Second, Lena physically attacks Beneatha as well. It can be most dramatically seen in the scene where Lena slaps Beneatha for declaring that she does not believe in God, clearly attesting to the idea that Lena is controlling Beneatha’s actions and at times her ways of thinking. Finally, Lena instructs Beneatha to do things which are clearly against Beneatha’s will. This can be demonstrated in the scene where Lena commands Beneatha to repeat after her that in her house there is still God and there are some ideas that will never change, as long as she is the head of the family.

Conversely, Lena’s Character Relationship Function with Ruth can be perceived as nurturer-nurtured (care-giver and care-taker), as well as teacher-student. Lena manifests her preoccupation with Ruth’s health every time it comes to her

<table>
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<th>Table 1. Imagery Groupings</th>
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<tr>
<td><strong>Control/Dominance</strong></td>
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<tr>
<td>- Sound of arguing</td>
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<td>- Sound of slaps</td>
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<td>- Demands</td>
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<td>- Shouting (“Eat your eggs”)</td>
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<th>Identity</th>
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<th>Freedom</th>
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<tr>
<td>- Beneatha’s hair</td>
<td>- Beneatha’s morality</td>
<td>- Mr. Younger</td>
<td>- Asagai</td>
<td>- New house</td>
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<tr>
<td>- Guitar lessons</td>
<td>- Lena’s morality</td>
<td>- Old house</td>
<td>- Medical School</td>
<td>- “African roots”</td>
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<td>- Horse ride</td>
<td>- Lena’s old-fashioned morality</td>
<td>- Old Furniture</td>
<td>- Women’s hard work</td>
<td>- Nigerian costume</td>
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<td>- Benetha’s morality of the Younger family</td>
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<td>- Assimilated boyfriend</td>
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<td>- Boyfriend who assimilates</td>
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<td>- Mirror</td>
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<td>- Liquor store</td>
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<table>
<thead>
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<th>African Heritage</th>
<th>Order</th>
<th>New Order</th>
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<td>- African-American</td>
<td>- The kitchen</td>
<td>- College</td>
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<tr>
<td>- Assimilationist</td>
<td>- The Younger Family</td>
<td>- Medical school</td>
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<td>- African characters</td>
<td>- Home</td>
<td>- Africa</td>
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<td>- Nigerian clothing</td>
<td>- Old furniture</td>
<td>- Abortion</td>
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<td>- African culture</td>
<td>- Lena’s preaching of morality</td>
<td>- Beneatha (youngest child)</td>
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<tr>
<td>- African tribes</td>
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attention that Ruth is not feeling well. This is obvious when
Lena offers to help Ruth ironing some clothes after realizing
that Ruth is not feeling well. She also helps Ruth disclose
the news of her pregnancy to Walter. Additionally, she takes
advantage of the fact that she is the older member in the house
to teach Ruth what to feed her grandson, Travis.

Through this analysis, though Lena’s major Character
Relationship Functions with the other major characters
function in the obvious “Parent-Child” manner, they can also
be characterized as nurturer-nurtured or care-giver care-taker,
teacher-student, dominating-dominated, and abuser-abused.
These combine to create a vision of woman as controlling,
domineering, abusive, nurturing, and caring.

As a result of this Structural Analysis, Lena’s multidimensional
vision arising out of the World of the Play, Imagery Groupings,
and Characters Relationship Functions is apparent. This vision
of past World War II woman in the Southside Chicago is one
of a poor, black mother who works very hard to nurture her
family – both financially and emotionally – who at times is
the typical controlling black matriarch, and who is always a
persistent nurturing woman. Finally, under the Character
Relationship Functions, the vision expands to woman as
domineering, controlling, and abusive, but also nurturing,
loving, and care-giving.

The second major mode of analysis is the Stanislavskian Analysis,
or actor-based approach. Through this mode of analysis, it can
be hypothesized that Lena’s Super Objective is “I must extract
my family from the ghetto and provide for them at all cost”.
This is clearly demonstrated by the three categories noted in
the Introduction: Lena’s major lines, her major actions, and
what other characters say about her character.

Lena’s major lines that support the cited Super Objective are
as follow:

When Lena is apologizing to her son, Walter, because
she feels she has contributed to Walter’s unhappiness,
she says:

What you ain’t never understood is that I aint’got
nothing, don’t own nothing, aint never really wanted
nothing, don’t own nothing that wasn’t for you. There
aint nothing as precious to me… there ain’t nothing
worth holding on to, money, dreams, nothing else-
if it means- if it means it’s going to destroy my boy.
(106)

Lena responds to Mrs. Johnson’s commented about
what will happen to them a month after they move to
Claybourne Park:

We ain’t exactly moving out there to get bombed…
We done thought about it all Mis’ Johnson. (102)

When Lena is talking to Ruth about how important
her old plant is to her, she offers:

Well, I always wanted me a garden like I used to see
sometimes at the back of the houses down home. This
plant is close as I ever got to having one. (53)

When trying to avoid her grandson, Travis, from being
“spanked” by his mother, Ruth, Lena asks Ruth to at
least let her tell him what she did with the insurance
money first:

I want him to be the first one to hear…- you know
that money we got in the mail this morning? …She
went out and she bought you a house. You glad about
the house? It’s going to be yours when you get to be a
man. (90-91)

From Lena Younger’s lines, a woman who seemingly wants
to move her family to a white middle class neighborhood,
Claybourne Park, out of the ghettos of Chicago regardless
of what other people may say or think about her decision, is
becoming apparent.

Next, Lena’s major actions also clearly support the chosen
Super Objective noted above. Lena decides to purchase a house
with the insurance money without consulting with the rest of
the family. Further much to the disappointment of Walter,
she commands Walter not to buy the liquor store, thereby
destroying Walter’s dream of acquiring a liquor store. In
addition, Lena physically attacks her son, Walter, after learning
that he lost part of the insurance money that was supposed to
pay for Beneatha’s medical school and contribute to Walter’s
dream of acquiring a liquor store. Next, Lena demands the
presence of Travis, her grandson, when Walter is about to sell
their new house located in Clybourne Park, hoping that it will
change Walter’s decision.

From Lena’s actions, we are presented additionally, with a woman
who values her own over those of the other family members at
any cost, even if it means going against her children’s will.

Finally, the major lines that attest to what other characters say
about Lena are noted below:
When Beneatha tells Ruth that Mama is not always right, she says, “I see. I also see that everybody thinks it’s all right for Mama to be a tyrant. But all the tyranny in the world will never put a God in the heavens” (52).

Ruth desperately pleads to Lena, after Lena’s confession that her problem is that she is too ambitious. However, Ruth with urgency asks Lena not to give up and says, “Lena—I’ll work… I’ll work twenty hours a day in all the kitchens in Chicago…-- but we go to MOVE! We got to get OUT OF HERE” (140).

When Mrs. Johnson goes to visit the Younger’s family, she comments to Ruth and Mama about their moving to Claybourne Park. She says, “Oh, ain’t we getting ready around here, though! Yessir! Lookathere! I’m telling you the Youngers is really getting ready to “move on up a little higher. (99)

The lines of other characters in the play such as Ruth’s desperate plea, as well as Beneatha’s outburst, support the facet of woman who is perceived by others as the head of the family, by whom issues or wishes have to pre-approved, and at times, as a tyrant. Additionally, Miss Johnson’s sarcastic remarks point to Lena as an ambitious woman.

The next component of the Stanislavskian System to be addressed is Tactics. As suggested in the introduction of the study, this section analyzes the main tactics used by Lena during the play, based on Robert Cohens, two categories of Threat Tactics and Induction Tactics.

It becomes clear that the main Threat Tactics utilized by Lena in the play are the tactics of Taking Charge, Overpowering, and Attack. There are the many actions and lines which suggest these three Threat Tactics. Among them are the following:

When Beneatha says “Not crazy. Brother isn’t really crazy yet-he’s an elaborate neurotic”, Mama yells angrily “Hush your mouth” (49), suggesting the tactic Cohen calls Overpowering.

When Walter confesses to Lena that he has lost the insurance money, he says:

“Yesss! All of it … It’s all gone” and without thinking it about it, Mama starts “to beat him senselessly in the face” (129).

This moment implies the tactic used by Lena is what Cohen calls Attack.

Additionally, upon Mr. Lindner’s exit, Lena demands that every single member in the Younger family do what they have been instructed to, she says,

Look at all this here mess. Ruth, put Travis’ good jacket on him… Walter Lee, fix your tie and tuck your shirt in, you look like somebody’s hoodlum! Lord have mercy, where is my plant?… Travis child, don’t go empty-handed… Ruth, where did I put that box with my skillets in it? I want to be in charge of it myself… Beneatha, what’s the matter with them stockings? Pull them things up, girl. (149)

The above demonstrates the tactic that Cohen calls Taking Charge.

From the above tactics, Overpowering, Attack, and Taking Charge it is obvious that Hansberry creates an image of a woman, who is domineering, controlling, and demanding.

On the other hand, under Induction Tactics, Lena seems to be engaging in tactics of Inspiring, Amusing, and Flattering. Among the several lines and actions that support the three most commonly used Induction Tactics, we have the following examples:

First, when Asagai, politely apologizes for visiting Lena’s house so early in the day, Lena responds,

Well, you are quite welcome. I just hope you understand that our house don’t always look like this. Uou must come again. I would love to here all about-(not sure of the name) - country. I think it’s so sad the way our American Negroes don’t know nothing about Africa ‘cept Tarzan and all that. (63)

This line suggests that Lena employs the tactic, Cohen labels Amusing.

Next, Lena in one instance in the play tells her son, Walter that,

When the world gets ugly enough—a woman will do anything for her family. The part that’s already living (74);

Additionally, later on in the play, during a different interaction she has with her son, Walter, she says tries to bring Walter to his senses right before he decides to sell their new house and says:
Son—I come from five generations of people who was slaves and sharecroppers—but ain’t nobody in my family never let nobody pay ‘ em no money that was a way of telling us we wasn’t fit to walk the earth. We aint never been that poor. We aint never been that— dead inside. (143)

These two distinct interactions Lena has with Walter, suggest that the tactic used by Lena is what Cohen calls Inspiring.

Beyond these lines, there is moment in the play, near the end, where Lena engages in a brief moment of forgiveness, in which she tells Beneatha,

There is always something left to love. And if you ain’t learned that, you ain’t learned nothing. (Looking at her) Have you cried for that boy today?... Child, when do you think is the time to love somebody the most? When the done good and made thins easy for everybody? Well then, you ain’t through learning—cause the world done whipped him so! When you starts measuring somebody, measure him right, child, measure him. Make sure you done taken into account what hills and valleys he come through before he got to wherever he is. (145)

These lines imply two tactics that Cohen calls both Amusing and Inspiring.

From the Induction Tactics of Flattering, Inspiring, and Amusing, we can conclude that Hansberry also creates an image of woman, through the character of Lena, who is nurturing, loving and, at times, inspirational. The character of Lena suggests a woman who carries a positive attitude toward most everything in her life — even toward the more difficult situations in her life — supporting the vision of Lena as a strong and maternal figure. Along with the threat tactics of Taking Charge, Overpowering, and Attack, the evolving vision is one of a woman who overpowers her children and controls them to a point of physical violence, but who simultaneously serves as a care-giver and source of inspiration to her children.

The Stanislavskian analysis reinforces the vision of woman that has emerged from the World of the Play, Imagery, and Character Relationship Functions through its different categories characterized by “Lena’s Super Objective”, “Lena’s Major Lines”, “Len’s Major Actions”, “What other characters say about Lena’s character”, and “Tactics”. The Stanislavskian analysis affirms a vision of woman through the character of Lena who aspires to live with her family in a better environment than the slums of South Side of Chicago and because of her aspirations she is perceived by others to be too ambitious. Lena is also perceived to be demanding and, at times, controlling within the relationships to her children. However, the Stanislavskian analysis, also testifies to a vision of woman who is inspiring and nurturing.

The intrinsic analysis of this study, rooted in the Literary Structural Analysis and Stanislavskian- based analysis reveals in Lorraine Hansberry’s A Raisin in the Sun several aspects of the Vision of Woman created through the character of Lena Younger. This ultimate vision is one of woman as hardworking, determined, demanding, controlling, nurturing, loving, and sensitive black mother. Lena demonstrates to be a woman of great moral strength and who demonstrates to be more than a simple black matriarchal domineering figure.

**Reference**


Mild Mental Retardation (MMR) is a general term that refers to impairments in intellectual ability and adaptive skills, which include activities of daily living (ADLs), communication skills and social skills. MMR can be caused by genetic abnormalities (e.g., Down Syndrome [DS]), environmental factors such as head trauma or lack of oxygen at birth, and in some cases for undocumented reasons. These latter individuals are often referred to as having mental retardation of unknown etiology. Although most people associate mental retardation with cognitive impairments, previous research suggests that these individuals have visual perception impairments as well.

Visual perception encompasses abilities such as binocular depth perception, motion perception, color vision, and contrast sensitivity. Binocular depth perception is the ability to perceive the world in three dimensions, based on the fact that each of our two eyes sees a different view of the world. Difficulties with binocular depth perception can contribute to stumbling and spilling. Motion perception is the process of inferring the speed and direction of elements in a scene based on visual inputs. Deficits in motion perception can cause difficulties noticing moving objects such as automobiles. Color perception is an organism's ability to distinguish objects based on the wavelengths of light they reflect. Color vision impairments can distort the individual's ability to differentiate between colors. Finally, contrast sensitivity is the ability to perceive an object and distinguish that object from its surroundings based on contrast. Deficits in contrast sensitivity can cause difficulties with distinguishing a door from the surrounding wall or detecting food on a plate.

These visual perception abilities are processed within two visual streams in the brain. These two streams are known as the “ventral” and “dorsal” visual pathways. The ventral pathway projects from the visual cortex (from the posterior of the brain to the anterior) into the temporal lobes. The ventral pathway is also considered the “what” stream; it is called so due to its ability to detect and identify objects. The dorsal stream projects from the visual cortex into the parietal lobes and constitutes the “where” stream. The “where” stream indicates where objects are in space. Perceptual abilities such as color vision are processed by the ventral stream while motion perception is processed by the dorsal stream. Binocular depth perception and contrast
sensitivity are processed by both depending on the nature of the task given. Individuals who have damage to the ventral stream have difficulty recognizing objects; they can, however, maneuver objects and pick them up accurately. Those who have damage to the dorsal stream have difficulties locating an object in space and grasping it correctly.

**Visual Perception Deficits in MMR**

Individuals with MMR of unspecified etiology have substantial deficits in visual perception (Fox & Oross, 1992). Impairments have been noted in binocular depth perception (Fox, & Oross, 1988), motion perception, and monocular depth perception (Shimp and Oross, 1994). Fox & Oross (1993) demonstrated that individuals with MMR show deficits in binocular depth perception. To assess this, a random element stereogram was utilized; this assessment can be compared to watching a 3-D movie in that the same brain mechanisms are activated. The stereogram has a view for the left and right eye. In order to view properly, a mechanism within the visual system compares the individual elements, matching them to one another. If matched and processed correctly, a shape is perceived. The ability to view the solid textured surface is complex yet seemingly effortless for individuals without MMR. When viewed, a solid textured surface with distinct edges appears. In this experiment, the density of the stereogram was reduced from 50% to 25% to 10% and then 1%. The MMR individuals were able to detect the form at 50% just as the individuals without MMR; however in the lower density conditions, such as 25% and below, it appeared only as a blob rather than as a defined form. Due to the fact that the MMR group saw only a blob, it can be hypothesized that there is a problem with the depth perception mechanism within the visual system. The ability to match the elements to one another is called correspondence. It has been suggested that this deficit cannot be placed anywhere within the brain before the visual cortex because it is here that the information from the two eyes first interact.

Oross, Shimp & Fox (1993) demonstrated impairments in motion perception in individuals with MMR; the researchers tested this hypothesis by using a psychophysical assessment called a random dot kinematogram. This assessment required participants to perceive movement with a background of noise, similar to a television whose picture is “snow-like.” The actual assessment used the letter “E” with a background of noise. The participant indicated the direction the letter was moving, for example, left or right. As hypothesized, the performance of the individuals with MMR was significantly worse than those without MMR.

There have currently been no deficits related to color vision, or contrast sensitivity published for individuals with MMR (Shimp & Oross, 1992). Rocco, Cronin-Golomb & Lai, (1997), conducted a study examining color vision and contrast sensitivity in this population; however, no noted impairments were detected. This information combined with the noted deficits in binocular depth perception and motion perception suggests that individuals with MMR exhibit selective deficits in visual perception. Namely, the deficits noted in depth and motion perception suggest the existence of damage within the dorsal visual pathway while the lack of a deficit in color or contrast sensitivity implies an intact ventral pathway.

**Visual Deficits in DS**

In individuals with DS, impairments have been noted in color vision and contrast sensitivity (Rocco et al., 1997). Individuals in this study included those with DS and those with MMR. In terms of color discrimination, 48% of the DS group made one or more errors on the City University Color Vision Test. This test measures protan, deutan, and tritan impairments, the first two having to do with a red/green color defect while the latter with a blue/yellow color deficit. Results showed that the number of tritan errors made by the DS group was significantly different than the number of protan and deutan errors made. They also reported decreased contrast sensitivity in their DS sample across low, medium, and high spatial frequencies. This finding was supported by Courage, Adams, and Hall, (1997) in children with DS. As of yet, no studies have examined the binocular depth perception and motion perception abilities of individuals with DS. It remains to be seen whether deficits will be apparent in these specific domains.

**Visual Deficits and Activities of Daily Living**

The visual impairments noted in individuals with MMR and DS have ramifications for their activities of daily living and quality of life, including abilities such as pouring liquid into a glass, navigating from one location to another, climbing stairs, walking without stumbling or running into objects, reaching and grasping for objects, using appliances, and engaging in social activities like watching television or playing games.

**Present Project**

This present project aims to explore and compare a range of visual perceptual deficits (i.e., binocular depth perception, motion perception, color vision, and contrast sensitivity) in individuals with DS and MMR of unknown etiology, and relate these findings to impairments in adaptive skills known to exist in these populations. Unlike previous studies, all individuals with MMR of unknown etiology and DS will be given the same battery of assessments allowing performance to be directly compared both within an individual and across groups. This will enable profiles of performance to be constructed.
METHOD

Participants
Participants included 24 individuals with MMR, 24 individuals with DS and 24 individuals without mental retardation (NC). All ranged in age from 20 to 56 years. Data from these individuals were extracted from a database developed by Dr. Neargarder, thereby making this an archival research project. She recruited participants through area workshops, supervised group homes, and community advertisements. All MMR and DS adults were within the mild range of mental retardation. Participants were matched on gender with an approximate equal number of males and females; medicals records and caregiver reports indicated that they were free from glaucoma, cataracts, and macular degeneration.

Adults with specific ocular anomalies, such as strabismus and amblyopia, were not eliminated from the project. It was discovered that a fair number of adults with MMR and DS possessed such anomalies. We chose to include these individuals and examine how these ocular anomalies affected performance on each visual assessment. Information regarding the presence of an ocular anomaly was obtained through a variety of sources including medical history reports, caregiver reports, and claims made by the participants. Although ophthalmological exams were not performed to confirm these findings, adults with suspected anomalies were tested both binocularly and monocularly on the 96% Regan chart to confirm a difference in acuity between the two eyes.

The NC adults were recruited through area campuses and community advertisements. The NC adults matched the young adults with DS and MMR unspecified etiology in mean age and gender. All NC adults were free of glaucoma, cataracts, and macular degeneration. Three participants (2 middle-aged adults with MMR and 1 middle-aged adult with DS) were eliminated from the project due to their failure to successfully complete various practice conditions associated with the visual assessments.

Assessments
Assessments consisted of four visual perception abilities (binocular depth perception, motion perception, color vision, and contrast sensitivity). Each visual perception assessment was preceded by a practice condition that participants completed to insure inclusion in the experiment.

Depth Perception
The Howard Depth Perception Task. This assessment (see figure 1) allows for the measurement of stereoacuity thresholds even in individuals who lack stereopsis. It has been successfully used with a variety of clinical populations, and is well known for its use in measuring stereoacuity for real world objects. The Howard assessment utilizes a two-alternative forced choice method, wherein participants identify which of two vertical rods appears close to them. Participants maintain head position using a chin rest and view the two rods through a shutter-operated window. The rods are contained within a blackened rectangular box illuminated by a uniform light source. Stereoacuity is determined by obtaining a 75% threshold value for the left and right rods, calculating the midpoint between them, and subtracting this value from either threshold.

Figure 1. Depth Perception

Motion Perception
Global motion detection thresholds were assessed through the use of random dot kinematograms (see figure 2). In this figure, filled circles represent signal dots and open circles represent random noise. In the upper display, the target represents a 100% coherence condition, wherein all dots move in an upward direction. In the lower display, the target represents a 50% coherence condition, wherein 50% of the dots move in an upward direction, and 50% move randomly. In both displays, the comparison represents random noise, wherein dots select a new direction each frame from a uniform distribution of 360 degrees. Participants are asked to view two circles and indicate which one contains dots that appear to be moving in an upward direction. Modifications of the task procedures, which include the incorporation of staircase procedures and refined practice conditions, have been added to decrease administration time and insure task comprehension. Thresholds were obtained using a 2 down/1 up rule staircase procedure where two consecutive correct responses or one incorrect response initiated a change of direction. The staircase began at a coherence level of 100%, increased and decreased in 7% steps, and terminated after 10 direction reversals, the last 6 were averaged to determine threshold.
The City University Colour Vision Test
The City University Colour Vision Test (see figure 3), a simple color matching assessment, is easily understandable requiring minimal effort on the part of participants. This contrasts with traditional tests of color vision (e.g., the Farnsworth D-15) which rely on the ability of participants to order a series of caps according to hue. With this particular assessment, participants are presented with plates containing four circles, each a different color, with one circle in the center of the four. The participant is then asked to indicate which of the surrounding circles if most similar in hue to the one in the center.

The Regan Low Contrast Letter Acuity Charts
The Regan Low Contrast Letter Acuity Charts (see figure 4) assess acuity thresholds for each of five contrast levels: high contrast (96%), intermediate contrast (50% and 25%) and low contrast (11% and 4%). Each chart consists of rows of letters (eight per row) that decrease in size across rows. Participants view each chart (viewing distance is 10 feet) and match the letters on the chart to letters on a response board or verbally state what letter they see. A 75% threshold point is obtained for each chart using a Logit fit, wherein values are log transformed and fit to a straight line to obtain a threshold point.

RESULTS
For all of the following analyses significant findings are graphically displayed. Individual statistics are not provided due to space constraints. For all analyses, alpha was set at .05 unless otherwise specified.

The Howard Depth Perception Task
To analyze the results of the Howard Depth perception task a one-way between groups analysis of variance (ANOVA) was used to compare the three groups (NC, DS, and MMR) on their disparity values which were measured in arc seconds. The DS group performed significantly worse than the NC group, however, there was no deficit detected in the MMR group. The significant findings were followed by post-hoc analyses.

The Motion Perception Task
The results of the motion perception task (see figure 2) were analyzed using a one-way between groups ANOVA. It was used to compare the three groups (NC, DS, and MMR) on their motion coherence thresholds. The significant findings were followed by post hoc analyses. The DS and MMR group performed significantly worse than the NC group and the DS group performed significantly worse than the MMR group. Results are shown in figure 6.
The City University Color Vision Test

The results of the City University Color Vision test were analyzed using a Chi-Square analysis. There were no significant differences between either of the groups based on the number of protan, deutan, or tritan errors made. The results of the color vision test are presented in figure 6 which contains a table demonstrating the average number of color errors made by each group.

<table>
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<th>Protan</th>
<th>Deutan</th>
<th>Tritan</th>
</tr>
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<td>0.83</td>
<td>0.42</td>
<td>0.42</td>
</tr>
<tr>
<td>DS</td>
<td>0.77</td>
<td>1.15</td>
<td>3.08</td>
</tr>
<tr>
<td>MMR</td>
<td>0.38</td>
<td>0.00</td>
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</tbody>
</table>

Figure 6. The above table shows the results of the City University Color Vision Test. The components of the table are as follows; the three groups that participated in the assessment are listed at the left of the table, along with the possible color errors to be made listed along the top row. The numbers represent the average number of color errors for each type of color deficit. Protan and Deutan refer to red/green color errors while Tritan refers to a blue/yellow color error. There were no significant differences across groups for protan, deutan, or tritan color errors.

DISCUSSION

A preliminary profile of individuals with MMR as compared to the NC group suggests impairments in motion perception and contrast sensitivity. However, no impairments were found to exist in depth perception or color vision. Individuals with MMR showed a great deal of variability with the depth perception task which could have contributed to the lack of a significant finding. Also, the depth perception task used in this study did measure stereoscopic vision, such as that examined by Fox and Oross (1993). The differences between these assessments most...
likely contribute to the variability in the findings between the two studies. The overall results support the suggestion that these individuals have selective visual impairments and that both the ventral and dorsal visual streams are affected in the brain. Profiles for individuals with DS as compared to the NC group show that there are impairments in binocular depth perception, motion perception and contrast sensitivity. Similar to the MMR group, there were no impairments exhibited with color vision. These noted impairments also indicate problems with both visual streams.

Figure 8. The graph above represents the mean performance of the three groups on the Reagan Charts, the components are as follows; the X axis contains the various contrast levels of each level of difficulty, with four percent having the least amount of contrast. The Y axis contains the Reagan Chart line numbers. The letters on the Reagan Charts decrease in size as the participant completes each line. Each line is smaller than the one before. Vertical bars represent the standard error of the mean. As shown below, the DS and MMR group performed significantly worse than the NC. There was also a significant difference between the DS and MMR groups. Overall, the DS group performed significantly worse than both groups on the assessment of contrast sensitivity.

† = MMR differed significantly from DS.
* = DS and/or MMR differed significantly from NC.

When comparing individuals with MMR and DS, the DS group performed significantly worse than the MMR group on all measures with the exception of color vision wherein no impairments were exhibited, this could potentially suggest that individuals with DS have more neuropathology within the visual streams than individuals with MMR, or that other factors are contributing to their poorer performance such as ocular abnormalities.

These patterns of results support the hypothesis that deficits exist within the visual streams of the brain in MMR and DS individuals are not due to cognitive factors such as inattention, lack of motivation, and/or a general cognitive impairment. Recall that each assessment was preceded by a practice condition where a certain score or threshold must have been obtained in order for the participants to continue. Due to the fact that each participant completed the practice condition successfully suggests that poor performance was not due to inattention or lack of comprehension. As noted previously, only three participants were excluded from the study due to the fact that they could not complete the practice condition. Moreover, for some assessments (e.g., motion), the MMR and DS groups make no errors at the highest levels of coherence (100%). It was only when the coherence levels were lowered was a deficit in performance observed. This suggests that individuals understood the task instructions.

As noted previously, MMR and DS individuals experience problems in activities of daily living such as pouring liquid into a glass, climbing stairs, using appliances, and engaging in social activities. Rieser, Guth, & Weatherford (1987) examined how deficits in binocular depth and motion perception affect an activity of daily living known as wayfinding. Participants began at an object in a room and were then told to move in various directions and told to turn a certain number of times. The more turns they were asked to make, the greater the task difficulty. All participants entered the same room and were then asked to point to the object they started at using a laser pointer. They found that the individuals without mental retardation mediated their responding with visual-environmental cues, whereas the individuals with MMR did not. In other words, the depth and motion cues in the scene helped individuals without MMR determine where they were in the scene relative to the other objects in the room. This same visual information did not help individuals with MMR. From this study we get a clear picture of how these individuals’ impairments have a dramatic effect on their everyday life. In fact, in 1973, Rieser et al., surveyed the autonomous travel of MMR persons and found that only 25% ventured independently outside their immediate neighborhoods, and only 80% traveled even within their own neighborhood. They also found that individuals with MMR have difficulty recognizing photographs of familiar scenes in route learning and in learning the two dimensional arrangement of landmarks in a town.

With the research findings provided, it is necessary that professionals use it and focus their efforts on environmental interventions. There is a dire need for group homes, community facilities, workplaces and special education classrooms to be evaluated for their effectiveness in aiding those with MMR or DS. A specific focus on special education classrooms is of particular importance. Young individuals with intellectual
disabilities are also at a critical stage developmentally and should therefore be encouraged to carry out certain tasks and chores independently. If children with or without an intellectual disability cannot learn to be independent in their school, where will there be another opportunity? It is also important to educate the special education teachers on the visual perception impairments of these individuals. Having the environment work for the students will be far more beneficial than the students having to battle with their environment. Independence is the key, allowing individuals to take care of themselves and maneuver around their homes or workplaces without help thereby increasing their level of independence and overall quality of life.

References


The Myth of the Female Sex Offender

CHELSEA HORROCKS

More than 300,000 women and nearly 100,000 men were forcibly raped in 1995 (Tjaden & Thoennes, 2006). The National Violence Against Women (NVAW) Survey, the last nationwide survey on rape, which had 8,000 male and 8,000 female participants, found that one of every six women and one of every thirty-three men is raped at some point in their lifetime. Thirty-two percent of the women and sixteen percent of the men were injured during their rape. In another nationwide telephone survey, twenty-two percent of 3,000 adults reported being sexually abused (Vandiver, 2002).

As heinous as they are, sexual offenses are largely underreported. According to the NVAW Survey only one in five women reported their rape to the police. A study conducted in 1985 reported an even lower rate of disclosure. Of the 3,000 interviews and twenty-two percent of rape victims only three percent had reported it to the police (Vandiver, 2002). How much of this abuse is perpetrated by females is unknown, but it is becoming clear that females have more often been the perpetrator than was believed in the past. The NVAW reported that less than one percent of women in this survey were raped by a female. However, eighteen point two percent of men reported being raped by a female (Tjaden & Thoennes, 2006).

The study of female sex offenders is relatively new and our understanding is just developing. The literature to date provides us with a framework in understanding how female and male sex offenders differ. Female sex offenders are most often in their late twenties or early thirties and the majority are Caucasian (Vandiver et al., 2008). Female offenders are significantly more likely than male offenders to victimize children under the age of twelve (Freeman & Sandler, 2008).

Some female offenders commit incestuous offenses, sometimes of their own volition, but often at the urging of a dominant third party male (Vandiver & Kercher, 2004). The exact occurrence of co-offending is difficult to determine, but it is known that women more often offend with another person or in a group than men do (Vandiver et al., 2008). A common stereotype of sex offenders is that they offend against victims of the opposite sex. However, in some studies it has been suggested that the victims of female sex offenders are almost equally likely to be females as males. Vandiver and Kercher suggest

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that this could be caused by the increased likelihood that a woman is acting with a man, or at his urging (2004).

The phenomenon of female sex offending must be better understood. Without a nuanced understanding of these women and their motives, treatment will be limited and ineffective. There is no successful system in place for female sex offenders once they have been convicted. Sex offender treatment with males is inappropriate and practices such as chemical castration are not effective or appropriate for female offenders. In addition, law enforcement’s focus on males as the only sex offenders allows for the possibility that abuse by females will be overlooked, leaving their victims helpless.

Methodology
Using a qualitative approach, this research compared and contrasted female and male sex offenders. Specifically the study reviewed the existing typology of female sex offenders as developed by Vandiver (2002) and the typology of male sex offenders as articulated by Groth (1979). Applying them to two high profile cases involving female offenders. Case studies were used in this research to establish the applicability of two existing typologies to actual crimes.

Groth’s Typology
In 1979 A. Nicholas Groth created the first typology of male rapists. This typology was developed in order to assist with the understanding and treatment of sex offenders. His three categories for this typology were anger, power, and sadistic rapists (Groth & Birnbaum, 1979). These three categories are best described as “…(1) the anger rape, in which sexuality becomes a hostile act; (2) the power rape, in which sexuality becomes an expression of conquest; and (3) the sadistic rape, in which anger and power become eroticized ” (Groth & Birnbaum, 1979, p. 13).

Anger rapists are characterized by a complete loss of control before and during the rape. They express their anger and frustration by attacking a woman and treating her in the most degrading manner possible. The assault is not about the sexual gratification received from the rape, but about the degradation of women. The anger rapist rarely knows the woman he attacks. She is a representation of his anger and disdain for all women (Groth & Birnbaum, 1979).

Power rapists are generally less violent than anger rapists. They are more aware of the situation and will use violence to prove their manhood and their control of the situation, not because they have any specific desire to hurt the victim. The power rapist is attempting to satisfy feelings of inadequacy in relationships and life by becoming a dominant sexual being (Groth and Birnbaum, 1979).

Sadistic rapists are the most violent type of rapist. They set out to harm their victims. They gain pleasure from their victims’ pain. This is how they achieve arousal and in some cases sexual gratification without sexual activity. They often torture their victims and perform ritualistic behaviors such as cutting the hair or finger nails, or washing the body. They are the most likely to have a type, all of his victims will be similar in at least aspect such as appearance or occupation (Groth and Birnbaum, 1979). Sadistic rapists have high recidivism rates and it is not unusual for the sadistic rapist to kill his victim (Terry, 2006).

Groth’s typology was established after interviews with over five hundred male rapists. Only three interviews were conducted with female sex offenders and therefore the typology cannot be universally applied to sex offenders. Females offend for different reasons and motivations than male sex offenders (Groth and Birnbaum, 1979). This typology also assumes that the victim of a sexual offense is female. While the majority of victims of sexual assault are female, a significant portion of the victims are male.

Vandiver’s Typology
Given the paucity of research into female sex offenders, there is a clear need for typologies and an increased understanding. Vandiver and Kercher proposed a typology of female sexual offenders in 2004. Previous typologies were established using at most a population of ninety-three with the majority having fewer than twenty person samples.

Vandiver and Kercher’s study was performed using arrest data from 471 registered female sex offenders in Texas. From this information they established six categories for female sex offenders. Their categories include heterosexual nurturers, noncriminal homosexual offenders, female sexual predators, young adult child exploiters, homosexual criminals, and aggressive homosexual offenders (Vandiver and Kercher, 2004).

The first of the six categories, heterosexual nurturers was the largest of the six groups with offenders with an average age of thirty. These offenders were unlikely to be rearrested. The victims of this group were all male and had an average age of twelve. These offenders were frequently in a caretaking or mentoring role, such as a teacher, to their victim at the time of the offense. Many of the women in this category viewed the relationship as nonabusive (Vandiver and Kercher, 2004).

The second category, noncriminal homosexual offenders were least likely to be rearrested for later offenses. The average age of the offenders was thirty-two. Nearly all of these offenders had female victims whose average age was thirteen. Although information on co-offenders was not available, it is thought that the high percentage of female victims may be accounted for
by the presence of a male co-offender (Vandiver and Kercher, 2004).

Female sexual predators were the third group and the most likely to be rearrested for a sexual assault. The average age of the offender was twenty-nine. The average age of the victims was eleven and slightly more than half were male. These offenders were most similar to non-sex offending female criminals in that they were more likely than other types of female sex offenders to have previous or future arrests for a crime other than a sex offense (Vandiver and Kercher, 2004).

The fourth group of female sexual offenders is young adult child exploiters. These offenders had the youngest average age at the time of arrest, twenty-eight. They also had the youngest victims at age seven with no apparent preference for male or female victims (Vandiver and Kercher, 2004).

The fifth type of sexual offender is the homosexual criminal. These offenders had an average age of thirty-two at the time of arrest. They are more likely to be motivated by economic considerations than to have a motivation based on sexual desire. They frequently force their victims into prostitution. The average age of the victims was eleven (Vandiver and Kercher, 2004).

The last cluster of offenders was the aggressive homosexual offenders. These offenders are most likely to victimize older women, their victims having an average age of thirty-one. These women were most likely to be arrested for sexual assault and were oldest at the time of their first arrest (Vandiver and Kercher, 2004).

A central flaw in this typology is the lack of motivational factors provided. One of the purposes of classifying offenders is to aid in treatment. Without motivational factors included, treatment and criminal justice providers have a reduced capacity to understand the offender and prevent re-offending.

As Vandiver and Kercher’s study was an attempt to create a more universal typology than those previously in existence by the use of a larger sample size than any past study had attempted, it was appropriate to test its applicability to selected case studies. Two high-profile case studies are presented to assess their applicability to both Groth’s and Vandiver’s typologies, subjectively evaluating their explanatory power. The cases of Karla Homolka from Canada and Debra LaFave (Florida) are discussed.

Case Study #1 - Debra LaFave

Debra Beasley LaFave was born August 28, 1980. She was raised in a strict Baptist home in Ruskin, Florida. In 2002 she graduated from the University of South Florida with a degree in English and the intention of becoming a teacher. She obtained a job teaching reading at Grecco Middle School in Temple Terrace Florida (Lafave and Simon, 2006).

By all accounts, LaFave was an excellent teacher, but it is in this arena, in 2004, that LaFave was first exposed to her future victim. His name was never officially disclosed in an effort by his mother and the prosecutors to protect his privacy and quality of life. He is subsequently referred to as M.M. He was a student at the school, but was not in any of her classes. She first met M.M. when she attended his football games to visit the coach who was a close friend. She was asked to chaperone a field trip to SeaWorld which the boy also attended. It was during this trip that she first became interested in the student (Lauer, 2006). He was fourteen years old and she was twenty-three.

After the first few passive meetings, LaFave began actively seeking his company, attending his basketball games. This behavior escalated to driving him home after each game and went further as she also began inviting him into her classroom in the morning before classes had started. She frequently spoke to him on the telephone, at least once in the presence of her husband (Lafave and Simon, 2006). Before the end of the school year, Debra and M.M. had kissed in her classroom. On June 3rd, shortly after school had let out, Debra drove to Ocala where M.M. was staying with his cousin. Debra let the cousin, who at this time was fifteen and had only a learner’s permit, drive illegally while she got into the back seat and had sex with M.M. (Lauer, 2006). The following day, Debra again drove to Ocala with M.M. where they met B.B. who she again let drive her car. He stopped at a park leaving LaFave and M.M. in the car to have sex while he walked around (Lafave and Simon, 2006).
It was at some point during this day that the B.B.'s mother saw him standing near Debra's car. A series of phone calls between both boys and their mothers ensued. Several lies were told, one eventually involving Lafave. M.M.’s mother contacted Lafave who ignored the call planning to deal with it later (Carlton, 2006). When B.B. returned home that evening, his mother demanded the truth, not having believed his lies. It was then that the story came out. Her mother called her sister, M.M.’s mother, to tell her what was happening. Before Debra had dropped M.M. off at the recreation center, his mother was aware of what had happened. By the time Debra returned the mother’s call with an explanation for having taken M.M. to Ocala, the police had been contacted (Lafave and Simon, 2006).

Debra was arrested by the Temple Terrace Police Department in Hillsborough County on two counts of lewd and lascivious battery on a person under the age of sixteen. She was kept overnight and released on bail the next morning. Because Debra had sex with M.M. when she drove him to Ocala, which is in a different county, on June 28\(^{th}\), she turned herself in to be arrested by the Marion County Sheriff’s Department on two counts of lewd and lascivious battery and one count of lewd and lascivious exhibition (Catanello et al., 2007).

Lafave hired John Fitzgibbons as her attorney. Fitzgibbons planned an insanity defense claiming that past trauma, namely her sister's death, her alleged rape, and her bipolar disorder were factors. More than a year of postponements and preparation for the trial were completed before the final date was set in December 2005. Several plea deals had been offered between the prosecutor and the defense. The defense rejected them because of the inclusion of jail time for Lafave.

One week before the scheduled trial date, M.M.’s mother contacted the prosecutor indicating that neither she nor her son wanted him to testify (Rondeaux, 2005; Carlton, 2006). Until this time, the mother had made it clear that she wanted Lafave to receive jail time, but now, faced with the prospect of her son testifying in a court room full of people and television cameras, she expressed to the prosecutor her desire to avoid a trial even if it meant that Lafave would receive a less severe sentence. The prosecutor chose to honor the mother’s wishes and approached the defense with a plea deal that avoided a prison sentence.

On November 22, 2005 LaFave pled guilty to two counts of lewd and lascivious battery with a sentence, agreed upon by both the Hillsborough and Marion County prosecutors. Her sentence was three years house arrest followed by seven years of probation. This also included a curfew as well as housing and work restrictions as a sex offender (Rondeaux, 2005).

All that was left after this agreement was for the plea deal to be approved by Judge Stancil in Marion County. He requested more detailed information on the effect the trial process would have on the victims, both M.M. and B.B. are included as victims. This included testimony from an expert in child psychology who had interviewed M.M., a statement by the prosecutor and a letter written by the victim’s mother expressing the boy’s desire to end the process. Following this hearing he still felt that the deal was much too light a sentence were she in fact guilty of committing the crimes she had been accused of and decided to go to trial against the wishes of all parties. Judge Stancil set a date for the trial at which time the prosecutor chose to nolle prosequi the case (Lafave and Simon, 2006).

**Applicability of Typologies**

Debra Lafave fits most closely into Vandiver and Kercher’s heterosexual nurturer category. Lafave was a teacher whose victim was a male. At fourteen his age was close to the Vandiver’s & Kercher’s study where the average victims’ age was twelve. Lafave viewed her offense as a relationship with the victim, not considering it to be harmful. She is substantially younger than the average age of offenders, but has not been rearrested for a similar offense.

LaFave does not fit into any of the three categories proposed by Groth. Anger rapists always exhibit some level of physical assault and generally do not know the victim. LaFave shares some characteristics in common with the power rapist, but does not fit the full profile. Her sexual encounters with the boy took place during date-like situations and she was fully in control each time. She may have been compensating for feelings of inadequacy in her life. Her assault did not take place at the first meeting and she viewed it as a relationship, therefore, presumably she would not have used violence against the boy had he rebuffed her advances. LaFave in no way fit into the sadistic type. She did not torture her victim and has not recidivated. Finally although Vandiver and Kercher’s typology does seem more appropriate, we still lack substantial information about both Lafave’s motivation and those of the heterosexual nurturer.

**Case Study #2 - Karla Homolka**

Karla Homolka was born May 4, 1970 in Ontario, Canada. During her childhood and into her early teen years, there were no apparent precursors to her future offenses (Williams, 1996). During high school, Karla attended a conference with two women from her work. While she was out with a friend, Karla met Paul Bernardo a twenty-three year old college student.
They dated through the rest of her high school years, got engaged and were eventually married on June 29, 1991 (Williams, 1996).

In what became known as Canada’s worst crime, Karla Homolka would be actively involved in the abduction, rape and sexualized murder of three young women between 1990 and 1993. The first of these crimes would be committed against Karla’s younger sister, Tammy in 1990.

When Paul and Karla first married there are contradictory stories about whether she was aware that she was marrying a rapist who would one day become a murderer. One source implied that she was aware of Paul’s alternate persona as the Scarborough rapist, that she had even accompanied him on one occasion (Williams, 1996). Another depicts Karla as an entirely innocent victim, ignorant of his crimes (Pron, 1995).

There are however two events that there is no doubt that Karla knew about and was involved in prior to the marriage. The first was the death of her sister. Paul had expressed a sexual interest to Karla in her younger sister Tammy. After her initial refusal to allow or to take part in an assault on her younger sister, Karla agreed that they would drug Tammy in order for Paul to rape her.

On December 23, 1990, six months before their wedding, Paul was staying with the Homolkas for Christmas. Throughout the night, Karla had been progressively drugging her sister’s drink. Once the drugs had taken effect, Karla took a halothane soaked rag and placed it across Tammy’s nose and mouth to ensure that she would remain comatose throughout the process (Williams, 1996). One author and reportedly Paul himself, described Karla’s gift of Tammy in the form of an unconscious teenager, as a Christmas present (Pron, 1995).

Karla initially monitored her sister’s breathing and periodically added halothane to the cloth keeping Tammy asleep while Paul assaulted her. However at Paul’s instruction she participated in the brutalization of her little sister as he captured every detail on film. During the assault Tammy vomited and began to choke. Karla and Paul attempted to clear her airway, but Tammy had ceased breathing. Karla called the paramedics while Paul tried to revive her. Tammy was rushed to the hospital, but was pronounced dead on arrival. Although both Paul and Karla were taken to the police station and questioned about any drugs they may have been using, they both answered convincingly and coherently enough that they were released. By the following day, her death had been determined accidental and Tammy Lyn Homolka was buried December 27, 1990 just four days before her sixteenth birthday (Williams, 1996).

The second crime Karla was involved in prior to her marriage was that of the rape and murder of Leslie Mahaffy. Leslie Mahaffy was a troubled teen who had run away from home on numerous occasions. On June 14, 1991 Leslie stayed out past her curfew, returning home to find the door to her house locked and Paul Bernardo lurking in her backyard. He wrapped his shirt around her face as a blindfold and drove her to his home (Williams, 1996). By midnight the following night, Leslie had been raped, sodomized and forced to perform oral sex on both Paul and Karla, once again with Paul capturing the entire scene with his camera.

The next day Karla dosed Leslie with sleeping pills. After she was rendered unconscious by the drugs, Paul strangled her with an electrical cord. They hid her body in their cellar because it was Father’s Day and the Homolkas were coming for dinner that night. The following day Paul cut Leslie’s body into ten pieces, encasing them in eight cement boxes which would be thrown into Lake Gibson. Two weeks after this event, Paul and Karla were married. The same day, Leslie’s body was discovered by a tourist fishing on the lake (Pron, 1995).

The third sexualized murder was that of the Kristen French was walking home from Holy Cross High School on April 16, 1992 when she saw a car parked at Grace Lutheran Church. It was Paul and Karla in the car and they called to her asking for directions. When she was next to the car speaking to Karla, Paul got out of the car and put a knife to her throat, forcing her into the front seat. They drove her to their home and put a blind fold on her (Williams, 1996). Over the next three days, Kristen would be expected to actively participate in sexually degrading tasks interspersed between such seemingly normal occurrences as helping Karla to make dinner. After each brief respite, the sexual abuse was resumed, Paul with the camera relentlessly documenting the horrific treatment of the girl until three days after she had been kidnapped it was finally shut off for Paul to kill her (Pron, 1995).

On February 1, 1993 Paul Bernardo’s DNA, which he had given voluntarily as part of a previous investigation, was matched to that found in three rape cases, proving that he was the man known as the Scarborough rapist. Both Paul and Karla were called in separately for questioning. Karla met with Paul Walker, a defense attorney, and told him everything (Williams, 1996). Karla was given what some considered to be a sweetheart deal. In exchange for the testimony she gave against Bernardo as well
as all of the information provided when she turned herself in and through the investigative phases, Karla was given a plea deal in which she would serve twelve years in prison and plead guilty to two counts of manslaughter (Williams, 1996).

September 1, 1995, Bernardo was found guilty of all nine charges, including two counts of first degree murder for Leslie Mahaffy and Kristen French. His sentence was life in prison without the possibility of parole for twenty-five years. In November of 1995, however, Bernardo was declared a dangerous offender meaning that he will spend the rest of his life in prison. Canada does not allow for the execution of offenders.

On July 4, 2005 Karla was released from prison after serving the full twelve years of her sentence. According to CBC News at the time she was released, public outrage had “barely cooled.” When Karla’s deal was struck with prosecutors, she was thought to be solely a victim. Shortly after the tapes she and Paul had made were discovered and it became clear that victim or not, she was an active participant in each of the crimes. The media referred to the deal prosecutors had made with Karla as a “deal with the devil” (Timeline, 2008).

Applicability of Typologies
Karla Homolka appears to fit most closely into the noncriminal homosexual offender category of Vandiver's typology. She has a male co-offender and her victims were all female. The victims were all older than the average age which was thirteen, but they were within a margin of error as the oldest was seventeen years old. She has not been rearrested since her target offense and subsequent release from prison.

Despite these factors, the fit is imperfect. The biggest difference is that noncriminal homosexual offenders do not generally sexually assault their victims and the assault was central to Homolka's offenses. She shares no characteristics in common with the heterosexual nurturer, the female sexual predator, and homosexual criminals. The young adult child exploiters and aggressive homosexual offenders are the two most likely of the six categories to commit sexual assault, but none of the other factors are consistent with Homolka's offenses.

As for Groth's typology, Homolka does not fit into the anger rapists' category. Her participation in each of the rapes was planned and for the most part nonviolent. She did not seek to be in control of the situation which is a defining aspect of power rapists.

Homolka does not fully fit into the sadistic rapist type either. The victims were tortured extensively mentally in addition to the physical pain caused during the repeated rapes of each victim. Karla did not demand the ritualistic behaviors that Bernardo encouraged. Her classification as a sadistic rapist depends on whether she is classified based on the whole crime committed or her level of participation in the crime itself. If she and Paul are considered together, she arguably fits as a sadistic rapist.

Groth and Birnbaum’s typology does not provide much information on the existence of co-offenders. As the typology was created from an almost entirely male sample and males are much more likely to offend alone, this is not unusual. However, this leads to a serious flaw in the application of this typology in the case of females.

Karla Homolka does not fit perfectly into any of the existing typologies. One downfall of Vandiver's typology is that it does not present a category of offenders likely to commit sexual homicide. This could stem from the fact that Vandiver and Kercher's typology was created using registered sex offenders from Texas. Sex offenders who committed sexual homicide are more likely to remain in prison and not necessarily be registered. Offenders who commit sexual homicide are likely to be charged only with the greater offense, homicide, and therefore not registered as sex offenders, despite the sexual nature of their crimes.

It is clear that while both Vandiver and Kercher's typology and Groth and Birnbaum's typology have at least limited applicability, more categories are necessary to account for all types of female sex offenders. The inclusion of motivational factors is crucial as well for the typology to fulfill its purpose as a treatment aid.

References


Brianne McDonough is a graduating Earth Science major with a concentration in Geology. Through the Adrian Tinsley Program, Brianne completed her project titled, A Two-Dimensional, Linear–Elastic Model to Explain Radial Extensional Fractures, Pantheon Fossae, Caloris Basin, Mercury, under the guidance of Dr. Robert Cicerone. Brianne is currently looking into employment within the realm of higher education and will eventually pursue a Master's degree in Remote Sensing.

A Two-Dimensional, Linear–Elastic Model to Explain Radial Extensional Fractures, Pantheon Fossae, Caloris Basin, Mercury

BRIANNE MCDONOUGH

In this study, two-dimensional linear elasticity theory is used to model the lithospheric stress field that produces radial extensional fractures observed at Pantheon Fossae in the Caloris Basin of Mercury. These fractures were imaged by the MESSENGER mission flyby of Mercury on January 14, 2008 and show radial fractures extending outward from a 40-kilometer impact crater named Apollodorus. Recent studies have proposed several different mechanisms to explain these fractures, including magmatic processes, central basin uplift, and stresses produced by the formation of the impact crater itself.

The model presented here attempts to describe the state of the stress field, independent of the physical mechanism that produced it. The first part of the analysis uses a model with azimuthal symmetry, consisting of a two-dimensional infinite plate with a hole in the center to represent the crater and a constant horizontal pressure applied along the crater wall. This model produces a stress field with compressive stresses in the radial direction and tensional stresses in the azimuthal direction, which is consistent with the formation of radial extensional fractures. However, this simple model cannot explain the observed asymmetry of the fractures distribution, where fractures extend further and are more abundant along a preferred azimuth of approximately N30°E. The second part of the analysis superposes an anisotropic regional stress field, with the maximum horizontal compressive stress aligned with this direction of maximum fracture extent. This analysis shows that the yield strength of the lithosphere is minimal along the direction of the maximum compressive stress. Therefore, a stress field with constant pressure applied horizontally along the crater wall superimposed upon a regional stress field with maximum horizontal compressive stress aligned along a N30°E azimuth can adequately explain the observed fracture distribution.

Introduction

The MESSENGER (MErcury Surface, Space ENvironment, GEochemistry, and Ranging) mission was launched by NASA on August 3, 2004. As part of its complicated trajectory to successfully enter the planet's orbit, the spacecraft performed one flyby of Earth on August 2, 2005, two flybys of Venus on October 24, 2006 and June 5, 2007, and three flybys of Mercury on January 14, 2008, October 6, 2008, September 29, 2009. The spacecraft will finally enter orbit around Mercury on March 18, 2011. This study will focus on the January 14, 2008 flyby. This flyby allowed images to be taken of parts
of the planet that were not imaged by the only other mission to visit Mercury, namely Mariner 10, in 1974. One of the more striking images taken was of an area in the center of the Caloris Basin (a large impact feature on the surface of Mercury) named Pantheon Fossae (Figure 1) by a flyby of the planet on January 14, 2008. This image shows an impact crater called Apollodorus, approximately 40 kilometers in diameter, which lies in the center of a radial pattern of extensional fractures. The unusual pattern of fractures inspired NASA personnel to nickname the feature the “Spider Crater”.

Extensional fractures are known to be caused by tensional stresses (i.e., “pull-apart” stresses), yet the conventional wisdom is that stresses in Mercury’s lithosphere (i.e., surface layer) should be compressional (i.e., “squeeze-together” stresses). These compressional stresses are hypothesized to be the result of a shrinking, or volume reduction, of Mercury of about 5% early in the planet’s history (Melosh and McKinnon, 1988). The Pantheon Fossae region, and in fact the Caloris Basin in general, are somewhat enigmatic in that they show evidence of tensional stress fields due to the presence of these extensional fractures.

Several different mechanisms have been proposed to explain the observed fracture distribution at Pantheon Fossae. Head et al. (2008) have attributed the origin of the radial fractures and dikes to molten material (magma) rising from the interior of the planet, producing horizontally-directed pressure around an approximately circular region at the center of the fracture pattern. This horizontally-directed pressure is produced by the rising magma, inducing “pull-apart” stresses that can cause the fractures to develop. Murchie et al. (2008) present a model where horizontally-directed pressure is produced not by rising magma, but by deformation of the lithosphere (outer layer) of the planet due to lateral flow of material from outside the area of the basin, producing uplift in the basin interior and subsequently causing “pull-apart” stresses to develop, thereby causing the fractures. While the details of this mechanism are different from the magmatic-intrusion mechanism, the basic mechanical model using two-dimensional, linear elasticity is still appropriate, where in this case the horizontally-directed pressure results from the central basin uplift.

Alternatively, Freed et al. (2009) have advocated for an impact-related mechanism for the extensional fractures, where the formation of the Apollodorus crater itself caused a perturbation in the stress field of the Pantheon Fossae region, thereby leading to the formation of the fractures. Again, while the details of this mechanism are also different, the basic mechanical model using two-dimensional, linear elasticity is appropriate to model the horizontally-directed pressure produced by the impact-generated perturbation in the stress field.

Two-Dimensional Linear Elasticity Theory

The method proposed in this study is to use the powerful mathematical tools of linear elasticity theory to calculate stress fields that can be used to model the distribution of fractures observed at Pantheon Fossae. The model presented here attempts to describe the state of the stress field independent of the physical mechanism that produced it.

The theory of linear elasticity involves solving the so-called biharmonic equation

$$\nabla^4 \Phi = 0,$$

where $\Phi$ is called the Airy stress function. Using a polar coordinate system with circular symmetry to simplify the analysis, the radial stress $\sigma_r$, circumferential stress $\sigma_\theta$, and shear stress $\sigma_\phi$ are given by...
where \( r \) is the distance from the origin of the coordinate system and \( \theta \) is the angle measured counterclockwise from the positive x-axis. The geometry of the problem is summarized in Figure 2.

The first part of the analysis uses a model with azimuthal symmetry, consisting of a two-dimensional infinite plate to model the lithosphere (outer layer) of Mercury with a hole in the center to represent the crater and a constant horizontal pressure applied along the crater wall (Figure 2). In this case, variations in the stress fields will depend only on the distance \( r \) from the crater wall, and all derivatives with respect to \( \theta \) are equal to zero. Therefore, the stress equations reduce to the simple form

\[
\sigma_{rr} = \frac{1}{r} \frac{\partial \Phi}{\partial r} + \frac{1}{r^2} \frac{\partial^2 \Phi}{\partial \theta^2},
\]

\[
\sigma_{\theta\theta} = \frac{\partial^2 \Phi}{\partial r^2},
\]

\[
\sigma_{r\theta} = \frac{1}{r^2} \frac{\partial \Phi}{\partial \theta} - \frac{1}{r} \frac{\partial^2 \Phi}{\partial r \partial \theta}.
\]

where \( \rho \) is the central pressure in the hole and \( r_0 \) is the radius of the hole.

The normalized compressional and tensional stresses as a function of normalized distance calculated from the above equations are shown in Figure 3. The sign convention used here is the one typically used in geology, i.e., compressional stresses are taken as positive and tensional stresses are taken as negative. The results show that both the compressive and tensional stresses produced in Mercury’s lithosphere by a pressure applied to the crater wall are at their maximum

![Figure 3](image-url)

Figure 3. Normalized compressional and tensional stresses as a function of normalized distance from the crater wall for the case of azimuthal symmetry. The stresses are normalized by the pressure at the crater wall and the distance is normalized by the crater radius. The stress field decreases as the square of the distance from the crater wall.
values at the crater wall and decrease with the square of the distance from the crater center. Therefore, at an arbitrary point in the medium, the radial stresses are compressive and the circumferential stresses are tensional (Figure 4). This stress condition is consistent with the formation of radial extensional fractures, as extensional fractures are known to form parallel to the direction of maximum compressive stress (e.g., Johnson, 1970).

Fracture Asymmetry and Anisotropic Regional Stresses
The results from a simple azimuthally-symmetric model predict that the distribution of fractures should be uniform around the circumference of the crater wall. However, the image of Pantheon Fossae in Figure 1 clearly shows that the fractures are both more abundant and of longer extent in a preferred direction, namely along an azimuth oriented approximately 30° east of true north. To quantify this fracture distribution, a Rose diagram was constructed, showing the total fracture length as a function of azimuth (Figure 5). This diagram confirms the preferred direction of fracture formation along the N30°E azimuth. Therefore, while the simple azimuthally-symmetric model explains the general features of the fractures in terms of the stress field that produced them, the actual azimuthal asymmetry of the fractures indicates a more complex stress-field configuration than that predicted by this simple model.

Azimuthal asymmetry, as seen is the actual fracture pattern at Pantheon Fossae, can be attributed to an additional regional, or far-field, stress. A similar pattern of fractures has been observed in the Spanish Peaks area of south-central Colorado (Odé, 1957) and was explained by the presence of a regional stress field in the area, with the maximum compressive stress aligned with the direction of maximum fracture length. Such a stress field is shown schematically in Figure 6.

Figure 4. Stress field at an arbitrary point in the medium. The radial stresses are compressional, and the circumferential stresses are tensional, which is consistent with a stress configuration that would produce radial extensional fractures.

Figure 5. Rose diagram showing the distribution of fractures. The diagram was obtained by determining the total fracture length within azimuthal windows of 10°. Note the preferred direction of fractures along an azimuth of approximately N30°E.

Figure 6. COMSOL Multiphysics modeling results for the regional stress field. The maximum compressive stress $S_1$ of 100 MPa is applied along an azimuth of N30°E, and the minimum compressive stress $S_2$ is applied in the perpendicular direction. The minimum compressive stress $S_2$ has a value of 100 MPa in the upper diagram and 70 MPa in the lower diagram.
Muller and Pollard (1977) have shown that such a stress field can be represented by the Airy stress function \( \Phi \), of the form

\[
\Phi_f = \frac{1}{2} S_1 r^2 \cos^2(\theta - \phi) + \frac{1}{2} S_2 r^2 \sin^2(\theta - \phi),
\]

where \( S_1 \) and \( S_2 \) are the maximum and minimum regional stress-field components, respectively and \( \phi \) is the angle between the maximum stress field component and the x-axis, measured counterclockwise. Then the radial stress \( \sigma_r' \), circumferential stress \( \sigma_\theta' \), and shear stress \( \sigma_\theta \) produced by the far-field stress are given by

\[
\sigma_r' = S_2 + (S_1 - S_2) \cos^2(\theta - \phi),
\]

\[
\sigma_\theta' = S_2 + (S_1 - S_2) \sin^2(\theta - \phi),
\]

\[
\sigma_\theta = -(S_1 - S_2) \sin(\theta - \phi) \cos(\theta - \phi).
\]

In addition to the azimuthal asymmetry, shear stresses are produced by this additional regional stress field. In this study, the COMSOL Multiphysics software was used to do some preliminary modeling to determine the effect of a superimposed regional stress field. The software determines the so-called von Mises stress, which can be interpreted as a measure of the strength of the medium under the applied stress field.

To replicate the conditions on the surface of Mercury, a square plate of dimension 800 km by 800 km was used, with a hole of 20 km radius at the center to model the crater. The material properties of the plate are those of basalt, the rock that is presumed to constitute the lithosphere of Mercury. An anisotropic (i.e., not equal in all directions) regional stress field was applied, with a maximum compressive stress \( S_1 \) of 100 MPa along an azimuth of 30° and the minimum compressive stress \( S_2 \) along a perpendicular direction. The maximum compressive stress of 100 Mpa is approximately the order of magnitude of the stress expected in Mercury’s lithosphere (Melosh and McKinnon, 1988). The minimum compressive stress was varied over values of 100 and 70 MPa. These results are shown in Figure 6.

The modeling results show that the von Mises stress, and therefore the strength, of the material is weakest along the azimuth of the maximum compressive stress. In other words, if the lithosphere of Mercury is “pre-stressed” by this regional anisotropic stress field, then the application of a constant pressure around the crater would cause the material to yield most easily along this direction first. This is consistent with the observation that the fractures extend furthest along this direction.

**Summary**

A simple two-dimensional, linear-elastic theory is shown to explain the presence of radial extensional fractures observed at Pantheon Fossae, Mercury. The model uses an infinite plate with a hole to represent the crater, with a constant pressure applied along the wall of the crater. The model produces a stress field with radial compressional stresses and circumferential tensional fractures that decrease with the square of the distance from the crater wall. This stress field is consistent with the formation of radial extensional fractures. The superposition of an anisotropic regional stress field, with a maximum compressive stress aligned along the direction of the maximum fracture extent, is shown to be a likely explanation of the observed asymmetry of the fractures, namely, the existence of a preferred direction of maximum fracture extent. However, additional modeling is needed to better quantify the nature of the regional stress field.

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**References**


The “Bad Girl” Turned Feminist: The Femme Fatale and the Performance of Theory

MICHELLE MERCURE

Picture the murderous femme fatale Jane Palmer in Byron Haskin’s 1949 film noir Too Late for Tears, as embodied by the talented actress Lizabeth Scott: gorgeous blonde locks, beautiful long legs and luscious thick lips, all dolled up in a shimmery evening gown fit for a Hollywood starlet and sporting a gaudy necklace that sparkles the way stars light up the night sky. Now, picture this dazzling figure stumbling over a balcony and plummeting to her untimely death after the police barge into her luxurious hotel suite in Mexico, accusing her of the murder of not one, but two of her husbands. Panicked by the accusation, she grabs two big handfuls of cash from the suitcase of money she possesses (the driving motivation for at least one of the murders, which she is guilty of). She darts away from the police, trips, and falls over the balcony, ending her life with a high-pitched, petrified scream. After she falls to her death, the money she has so desperately clung to disperses into the air, hovering around her dead body like snowflakes in a snow globe. The final image of the glamorous Jane Palmer culminates in a close-up of her hand: palm open, face up, with three bills strewn alongside it on the pavement where she meets her death.

Having the manipulative, greedy, seductive, murderous femme fatale fall to her death, as in this example, or perhaps be punished in some other manner—jail or marriage—is supposedly a distinctive characteristic of film noir, or at least this is what I anticipated prior to my examination of the femme fatale in the dozens of film noirs I set out to view. I anticipated that my analysis of the archetype of the femme fatale in classic film noir would reveal the following attributes: a female character who is beautiful and manipulative, cold and calculating, one who knows how to use her femininity in a way that can destroy men. I assumed that these women would epitomize evil, and that it would be a challenge for me to uncover their positive qualities by simply taking a feminist approach. However, the results of my analysis of film noir do not, in most cases, provide an example of a female character who is purely evil and deserving of such punishment; instead, I find it very difficult to know for certain the extent to which most of the femmes fatales I encountered are good or bad, even the murderous, greedy Jane Palmer. The femme fatale challenges the expectations of the viewer who anticipates that she will be purely evil, by seeming simultaneously good and bad.

This ambiguity represented in the archetype of the femme fatale provides a solution to one of the biggest concerns facing feminist theory today.
Within a patriarchal culture, voicing feminist theory in the very language used by that culture has presented a problem for feminist theorists who wish to communicate in a voice that has no affiliation with the patriarchal structure, one that will free women from its constraints. The patriarchal structure allows the male figure—the subject—in society to assume the dominant role and to retain all of the power, while the female figure is nothing more than an object meant to satisfy his desire; she is more or less a powerless figure in this structure, one with little or no voice. One way to hypothesize a solution to this problem of voicelessness is to create a unique voice for feminist theory—a language—that does not have any affiliation with the patriarchal structure. But this seems highly unlikely considering that any newly created voice (any newly created language) will inevitably be linked to the one conceived by the patriarchal structure, for it too must be conceived within it. Taking into consideration this inevitable link to the past, instead of rejecting the patriarchal structure as a source for change, feminists should embrace it and use it to their advantage. This is a much more feasible way to present a voice for feminist theory: to embrace the patriarchal language of the past and to revive the voice of feminist theory as it already exists there.

What I propose is a return to the archetype of the femme fatale in classic film noir. She voices feminist theory prior to its existence through her ability to perform, most expressly when she is seen as the spectacle in a musical performance. She displaces the role of the male subject by resisting his power to know whether she is good or bad, and to what extent she is good or bad. In the specific films I will address, she “acts” as the object of his desire by performing for him, but is she really performing for him, or does her performance serve another purpose, a more selfish one, perhaps? The male protagonist often appears frustrated by her performance, rather than satisfied by it. By denying pleasure for the male subject through her objectification as a spectacle on stage, she causes tension to arise in the subject and object of the patriarchal structure. This tension that the femme fatale causes neither “contests” the patriarchal structure, nor attempts to “converse” with it. Instead, it speaks from within the patriarchal structure, without letting it understand her meaning. Exposing this voice that has been neglected offers feminism a unique way of communicating. Although my research for the extended version of this project focused on four classic film noirs, in the interest of conserving space, here, I will only be focusing on *Gilda* by Charles Vidor and *This Gun for Hire* by Frank Tuttle. I am particularly interested in examining the archetype of the femme fatale from the perspective of a third-wave feminist, a perspective that is often in conflict with the views of 1970’s second-wave feminism, which argue that placing women in such roles as performer, actress, and sex symbol causes women’s oppression. In my view, such roles actually—and actively—resist oppression. By specifically looking at the musical performances by the femmes fatales in these films, I will show how the femme fatale “acts” out the theories of feminism prior to their emergence.

Before I begin my analysis of the femme fatale, though, I want to frame my research by looking at how prior scholarship has regarded this subject matter. I will begin by looking at the treatment of the genre of film noir, according to scholarly history. Classic film noir is restricted to a specific historical time period—the 1940’s and 1950’s. Some of the key characteristics of film noir are a male protagonist (usually a private detective), the element of criminality, a lack of morality, and an ambiguous plot. But there are other identifiable characteristics as well, such as the use of black and white film instead of color; discontinuity of time, in the forms of flashbacks or flash-forwards; strange camera angles; a voiceover, usually by the male protagonist; the use of wordplay, mostly in the form of double entendres; a nighttime setting; urban landscapes; roadways and cars; and, of course, the archetype of the femme fatale, a dangerously beautiful woman who leads men to their destruction. These characteristics, although they are not all present in every film noir (some contain many of them, while others contain only a few), help to create an aura of uncertainty that accurately reflects the time period in which these films were produced, making them identifiable as examples of film noir.

Many changes in domestic and economic structures began to occur during this time in the United States (both during and after World War II), creating uncertainty in its citizens over both moral and structural issues in regards to their daily lives. For one, the fact that women were forced out of their newfound independence in the workplace—achieved during World War II, when men went off to war and women dominated the workforce—and back into the domestic sphere led to a sense of confusion concerning the roles of women and men in the workplace and at home. Consequently, the duplicity of the femme fatale in film noir is often seen as a reflection of the confusing status of women in society at that particular moment in history. The male protagonist is often confused by her duplicity: her beautiful and innocent outward appearance may mask corruption and evil.

The femme fatale is an actress in every sense of the word. She lies, cheats, double-crosses, even murders her victims, and then cries, screams, sings, or whispers words of affection to the male protagonist to win him over, only to double-cross him again. It seems that everything she says and does is a fabrication of the truth, and her motive (although it too is often ambiguous) is usually greed. If her act isn’t enough to snare the male protagonist into becoming infatuated with her,
leading him to his destruction, her outward beauty will usually do the trick. Some of the most prominent characteristics of the outward appearance of the femme fatale include a cigarette, long, sexy legs that often dominate the frame, thick, luscious lips, gorgeous, wavy hair that frames her face perfectly, and an attire that is often very flashy: fur shawls and coats, long gloves that extend to the elbows, evening gowns that shimmer and sparkle, clothing that reveals legs, cleavage, arms, back, and/or shoulders, and a sexy pair of high heels. But it remains unclear why her image is so important, and exactly who it is important to. Is it important to the femme fatale herself? Does she gain pleasure from the sight of her own beauty, or is it meant for the pleasure of others?

Where feminist film theory is concerned, the femme fatale in film noir, with her focus on creating a flashy outward appearance to attract the opposite sex and her inclination to perform for the male protagonist, is a primary example of how film has constructed society to view women primarily as objects (or vice versa—how society has constructed film to support this view of women). Laura Mulvey uses the term “to-be-looked-at-ness” to articulate the inseparability of the two structures (film and patriarchy) in Visual and Other Pleasures. She writes,

In a world ordered by sexual imbalance, pleasure in looking has been split between active/male and passive/female. The determining male gaze projects its fantasy onto the female figure, which is styled accordingly. In their traditional exhibitionist role women are simultaneously looked at and displayed, with their appearance coded for strong visual and erotic impact so that they can be said to connote to-be-looked-at-ness. (19)

The male is the active one; he is the one who looks. The female is the passive one, the one being looked at. Our society has been structured according to this division of “active/male” and “passive/female.” According to many second-wave feminists, the femme fatale supports this structure, not only by allowing herself to be looked at, but also by provoking such attention in the first place, and therefore she acts in no way as a role model for feminist theory; instead, she is seen as a primary example of how not to act onscreen. Her “performance” for the male protagonist entails passivity, placing the male in the active role of “looker,” rather than the passive role of “looked at.” It seems, for feminist theory at least, that the only solution is to reverse the two roles, to have the female become the active one—the looker—and the male become the passive one—the looked at. But before this can be achieved the patriarchal structure that defines our society—a structure that allows the male to occupy the position of power, and compels the female to act as his object of desire and remain powerless—must be either changed or abolished.

My research suggests that taking another look at the femme fatale will make a new contribution, specifically to feminist film theory, one that allows the image of the femme fatale as spectacle—an image that has previously been a negative one for women—to occupy the dominant role, one usually reserved for the male figure in our patriarchal society. Through her musical performance of “Put the Blame on Mame,” Rita Hayworth, playing the role of Gilda in Charles Vidor’s 1946 film Gilda, exposes just how one might speak within the patriarchal structure without either “conversing with” or “contesting” it. In her second performance of “Put the Blame on Mame,” Gilda—who throughout the film has been falsely portraying herself as a promiscuous girl to make her ex-lover Johnny Farrell jealous—begins stripping off her clothes during the number as he watches, slowly removing her long, shiny black glove, swinging it around, and throwing it into the audience. She proceeds to do the same with the second glove, and then with her necklace. She would take her dress off, too, except in the words of Gilda herself, she’s “not very good at zippers.” After Johnny has Gilda dragged off stage, he confronts Gilda, saying, “What do you mean by it?” He cannot comprehend the meaning behind Gilda’s striptease. He then slaps her and storms off. Shortly after, Detective Maurice Obregon clarifies the situation for Johnny. He states, “Gilda didn’t do any of those things you’ve been losing sleep over. Not any of them. It was just an act, every bit of it. And I’ll give you credit. You were a great audience, Mr. Farrell.” The important point to make here is that Gilda has only been acting promiscuous; her performance is specifically designed for Johnny to see. And the fact that Johnny is unable to read the falseness of her performance (both on and off stage) reveals how Gilda uses the language of the patriarchal structure—her image as a spectacle—to practice the theories of feminism. She voices feminism through her performance by rendering it unreadable to the male subject that objectifies her, redirecting the power of the patriarchal structure to herself—the object.

Feminist film theorists might contest this claim. Mary Ann Doane, for example, suggests that the femme fatale is not an exemplary model for feminist film theory. She argues,

…the femme fatale is situated as evil and is frequently punished or killed. Her textual eradication involves a desperate reassertion of control upon the part of the threatened male subject. Hence, it would be a mistake to see her as some kind of heroine of modernity. She is not the subject of feminism but a symptom of male fears about feminism. Nevertheless,
Here, Doane is suggesting that the femme fatale is more powerful as a figure that reveals that there is a patriarchal structure in place, one that gives priority to the male subject, than as a figure who shows how to speak from within that structure. She claims that the femme fatale should not be seen as “some kind of heroine of modernity,” but rather a “symptom of male fears about feminism.” And while the femme fatale certainly can be seen as a “symptom of male fears about feminism,” by the way she is often destroyed by the end of the film, signifying the “reassertion of control upon the part of the threatened male subject.” I would suggest, as Doane begins to suggest here, that her “representation—like any representation—is not totally under the control of its producers and, once disseminated, comes to take on a life of its own”: there is the possibility of more than one interpretation of the femme fatale.

In the case of Gilda, she is speaking a language indecipherable to her male subject, Johnny. It is indecipherable to Johnny because he is unable to know for certain which performance is the “real” one, her act on stage as a stripper or her act off stage as a promiscuous girl, because she is always “acting” for him. For example, in one scene, after Gilda tosses her cigarette in the direction of a passing guest at the casino, the guest tries to persuade Gilda to have a drink with him by commenting that the cigarette’s landing on him “means we’re gonna have a drink together.” She immediately responds by saying no, but seeing Johnny headed their way, she recants: “On the other hand, I’d love to.” Johnny doesn’t know that all of this is an act because Gilda doesn’t want him to know. The question is: why is Gilda always acting for Johnny, and why can’t he see it is all an act? The answers to these questions reveal Gilda as a “heroine of modernity.” By causing this tension for Johnny, Gilda prevents the satisfaction of his desire to control her. Gilda successfully uses her objectification to produce a pleasureless experience for her subject, a frustrating one, in fact. What she is really doing by performing for Johnny (on and off stage) is teaching him (and the viewer) a lesson: that his (and our) relationship with her should not be one of subject versus object, active versus passive.

And Johnny clearly does desire to control Gilda. Johnny marries Gilda in order to punish her for being promiscuous while her husband, Ballin Mundson, was still alive. Immediately after they are married Johnny brings Gilda to her new home where she is startled to see that a painting of her late husband is hanging there. Here, Johnny acknowledges his intent to control her in a voiceover: “She didn’t know then what was happening to her. She didn’t know then that what she heard was the door closing in on her own cage. She hadn’t been faithful to him when he was alive, but she was gonna be faithful to him now that he was dead.” Johnny gets Gilda all wrong. First of all, he is mistaken about her infidelity; it was only an act. Second, he claims Gilda as his object—a possession—that he will keep in a “cage,” denying her independence. Here, he is being faithful to his dominant position in the patriarchal structure that gives all of the power to the male subject, but when Gilda performs “Put the Blame on Mame” for Johnny, stripping off her attire, frustrating him to the point where he slaps her, she is revealing that there is a gap in the structure, where she can show the male subject that it is a more pleasurable experience for both her and him when the woman is an active subject rather than a passive object.

According to Doane, this gap in the patriarchal structure that Gilda reveals is an interpretation only made possible through the feminist theoretical discourse that emerged long after the film was produced. She suggests that the incorporation of female spectatorship into cinematic discourse, a perspective that focuses on the female viewer’s identification with the images on screen instead of the male’s desire for the female as object on screen, is what allows “gaps, outlets, blind spots, excesses in the image” to express a feminist answer to the masculine structure. She writes,

It is all a question of timing. Feminist critical theory must be attentive to both the temporality of reading and the historicity of reading. What has to be acknowledged is that there are, in fact, constraints on reading, constraints on spectatorship. Social constraints, sexual constraints, historical constraints. If there were no constraints, there would be no problem, no need for feminist criticism. The difficulty is to hold on, simultaneously, to the notion that there are constraints and to the notion that there are gaps, outlets, blind spots, excesses in the image—to keep both in tension. (41)

That there is “temporality in reading” suggests that the interpretation of Gilda that is now available through the theories of feminism is one that might not have been possible prior to the emergence of such theories. Even though the “gap” Gilda reveals already existed, it could not be interpreted as voicing feminism prior to the emergence of this theory. In other words, although the voice of feminism has existed all along, it is a voice that has been severely neglected due to the “social constraints, sexual constraints, historical constraints” mentioned by Doane. Feminist theory, and specifically feminist film theory, should concern itself with investigating these “gaps, outlets, blind
spots, excesses in the image,” such as the one revealed by Gilda, to achieve a different perspective from which to view women in film, not as passive objects, but as active subjects, placing them on equal terms with their male counterparts.

How would this type of spectatorship Doane seems interested in differ from current spectatorship? Another feminist theorist, Teresa De Lauretis, voices her concern over this issue. She states, “The challenge to classical narrative cinema, the effort to invent ‘a new language of desire’ for an ‘alternative’ cinema, entails nothing short of the destruction of visual pleasure as we know it” (59). Although “a new language of desire” certainly is a goal that feminist film theory should strive for, “the destruction of visual pleasure as we know it” seems to be an unnecessary prerequisite for achieving this goal, and the “gaps” revealed by the femme fatale corroborate this. Gilda’s relationship with Johnny ends on a happy note, with the two of them reunited, Johnny finally understanding that her promiscuous act was just an act. But Johnny only comes to this conclusion through Detective Obregon’s observation of the situation. He never actually deciphers this information for himself. So is he really capable of hearing Gilda’s voice, seeing beyond the power of the constraints of the patriarchal structure, understanding the message behind the “gap” revealed by Gilda? And if not (which appears to be the case, considering there is no evidence of his coming to this conclusion on his own), is this really the best example of how to visualize “a new language of desire” in film? The answer is no. Gilda merely offers an example of how to use the (neglected) voice of feminism through her “act” that frustrates the male subject into becoming unable to decipher it. She does not offer the male subject (or film theory) any solution for how to hear her message. For this, we must turn our attention towards another film noir, Frank Tuttle’s 1942 This Gun for Hire, and another femme fatale, Ellen Graham.

The first image onscreen of the actress Veronica Lake playing the role of Ellen Graham is an image of her arm extending out from behind a wall in an audition hall at Fletcher’s Theatrical Agency. Her entire body follows, revealing a long, shimmering gown that is perfectly fitted to her slender frame, and gorgeous, lengthy, wavy blonde hair framing her soft white face. This is the grand entrance Ellen makes for her audition. She proceeds to perform magic tricks as she sings. While singing “Now You See It, Now You Don’t,” she makes billiard balls, cards, and herself, among other things, disappear and then reappear again while singing lyrics that seem to suggest that women’s love is very inconsistent. She sings, “Have you ever seen the love lights / In a lady’s eyes / And then suddenly watch it vanish away” at the start of her performance. Throughout the remainder of the song she repeats the chorus of the song: “Now you see it / Now you don’t / …That’s love.” With this performance Ellen is auditioning for a position that places her as an object meant to satisfy the desire of the male subject, a typical role for a woman in a film (or society) structured by patriarchy, yet through her lyrics Ellen suggests that you can see “…love lights / In a lady’s eyes / And then suddenly watch it vanish away,” which positions the woman in the role of control. It is the male subject who is at her mercy. She holds the ability to show “love lights” and then make it “vanish away.” The fact that Ellen’s performance is clearly meant to objectify her does not necessarily mean that she is not in the position of power. As in Gilda’s musical performance, her ambiguity gives her more power than her male subject, who fails to decipher the meaning behind the patriarchal discourse she speaks. But what happens when the subject fails to adhere to his position in the patriarchal structure, fails to objectify the object?

Ellen is not objectified by Philip Raven—the male protagonist in the film who kidnaps her after both the police and the men who hired him to kill a blackmailer begin tailing him—at all. And he won’t let her use her objectification, her skill of ambiguity, to subvert his power. Raven rejects her femininity (whether it is real or an “act” of femininity). When she places her hand on his shoulder and tries to reason with him, Raven reveals that he is on to her seductive act. Shaking her hands off of him, saying, “Come on, take your hands off of me. Button up, will ya? I’ll take care of Gates my way,” Raven clearly shows no desire to objectify her; he sees right through her ambiguity, realizes that her femininity can be used to control him if he falls into her trap. But the following morning, he strikes a deal with her, one that is made on both of their terms, without the need for her to “act” ambiguous. She will help him escape as long as he retrieves the chemical weapons that Gates possesses, so that no harm can be done with them. He is practicing feminism by resisting the desire to objectify her, and instead, attempting to communicate with her—through the patriarchal discourse offered to them—a message that is indecipherable to the patriarchal structure, because according to the (hetero) patriarchal structure the male subject should desire to objectify her.

And instead of having her perform for him as a passive object onstage, he asks her to perform as him by impersonating him so that he can escape the cops. Raven’s desire to have Ellen impersonate him does more than just help him escape the cops who are after him; it also transforms Ellen from a passive object to an active subject, revealing that the roles of men and women can be displaced within the patriarchal structure, even using the patriarchal structure. But it only transforms Ellen from passive to active in terms of how she is perceived by the patriarchal structure. Ellen is only looked at by the cops as active when she is wearing a disguise. As soon as Ellen crawls out from underneath
the immobile train she is hiding under, one of the cops removes
Raven's hat from her and confirms her role as object by saying,
“So old man Brewster was right. She is Raven's girl, huh. All	right, Crane, I’ll take over.” In this cop's perception, Ellen is
nothing more than “Raven's girl,” as if to say Ellen can only
be thought of as being someone else's possession—in this case
Raven's. But if Ellen is perceived as active when she is wearing
the disguise, then how can she so easily revert back to being
passive once it is removed? There seems to be a problem with
the perception of the onlooker who allows this distinction
between passive and active to be made in accordance with
her attire. The cops believe the act. They believe that Ellen
in Raven's hat, striding across the railroad tracks, is in fact a
man, Raven, because according to the patriarchal structure,
a woman cannot occupy the place of the active subject; she
must remain passive. And since Ellen's identity is revealed as
woman, it only makes sense to the patriarchal structure that she
is acting for her male subject—Raven—thereby occupying
her role as passive object. The removal of the disguise can only
reveal Ellen's power to the spectator who does not see her in
terms of the patriarchal structure. Both Raven and the viewer
know that Ellen willingly participates in Raven's escape, for her
own benefit as well as his, that she is an active subject. To an
onlooker like Raven, who sees her as an active subject, whether
she is wearing a disguise or not, Ellen's power can be used to
create a level of communication between the passive object
and the active subject that is achieved through the patriarchal
structure, yet indecipherable to it.

This representation of the ability to communicate a message
between the active male subject and the passive female object
within the patriarchal structure contradictory to the structure is
how “a new language of desire” becomes available to the viewer
who is able to decipher that message through contemporary
feminist critical theory. In the words of Doane, “It is all a
question of timing. Feminist critical theory must be attentive
to both the temporality of reading and the historicity of
reading.” In other words, without feminist critical theory this
interpretation would not be available. Even though the viewing
of the relationship between Raven and Ellen has been available
since 1942, when the film was produced, it is only through the
present perspective of feminist theory that their relationship
can be interpreted as the practice of feminism.

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Endnotes
1 See Jane Gallop’s *The Daughter’s Seduction: Feminism and Psychoanalysis* for a clearer understanding of what Gallop means when she uses the terms “contest” and “converse” (134).

2 There are other film noirs that feature a musical performance by a femme fatale, including dancing, singing and playing a musical instrument: Lauren Bacall as Vivian Rutledge in Howard Hawks’s *The Big Sleep* (1946), Lizabeth Scott as ‘Dusty’ Chandler in John Cromwell’s *Dead Reckoning* (1947), Jean Simmons as Diane Tremayne in Otto Preminger’s *Angel Face* (1952), Yvonne De Carlo as Anna Dundee in Robert Siodmak’s *Criss Cross* (1949), and Ann Blyth as Veda Pierce in Michael Curtiz’s *Mildred Pierce* (1945).

3 For more information regarding second-wave feminism and third-wave feminism see Estelle B. Freedman’s *No turning back: The history of feminism and the future of women* and Deborah Siegal’s *Sisterhood, Interrupted: From Radical Women to Girls Gone Wild*.

4 A *Panorama of American Film Noir* (1942-1953) by Raymond Borde and Etienne Chaumeton offers a more elaborate definition of the term film noir.

5 See Sara Evans’s *Born for Liberty: A History of Women in America* and Andrea S. Walsh’s *Women’s Film and Female Experience: 1940-1950* for a broad overview of the history of women in America. For a more specific understanding of women in film, look at Molly Haskell’s *From Reverence to Rape: The Treatment of Women in the Movies* and Ann E. Kaplan’s *Women in Film Noir*. 
Hurting to Cope: Self-Injurious Behavior as an Escape from Self-Focus

Danielle Williams

Self-injurious behavior (SIB) is a prevalent problem in today's society and is estimated to affect 4% of the general population (Darche, 1990; Nock & Prinstein, 2004). SIB has been described as a form of coping (Fliege et al., 2006) and a means of escaping negative feelings (Barrera, Violo & Graver, 2007; Nock & Prinstein, 2004), however it has not been examined within the framework of Baumeister's escape-style-coping theory (Baumeister, 1991a; 1991b). In addition, although escape-style-coping theory has been linked with self-focused temperament (Spievak, 2003), SIB has not been examined in relation to chronic self-focus. It was hypothesized that those individuals who reported self-injury would also be high in self-focus and report other related escape-style-coping behaviors. The results of two studies supported a positive correlation between self-injury and self-focus and related escape-style-coping behaviors.

Introduction

Definitions of self-injurious behavior (SIB) vary slightly, but it is generally characterized as deliberate damage to body tissue without conscious suicidal intent. Prevalence rates of SIB may be as high as 4% in the general population, are as high as 21%-66% in clinical samples (Nock & Prinstein, 2004; Darche, 1990), and at least one self-injury incident was reported by 17% of college students in one recent study (Whitlock, Echenrode & Silverman, 2006). Although the definition specifies non-fatal injuries and self-injury is most often an isolated behavior that does not lead to suicide, there is a complex relationship between suicide and self-injury. For instance, one study found that 6.9% of a clinical sample that displayed self-harm behaviors later committed suicide (Hawton & Harriss, 2006). In another study, the authors found that about 1% of individuals who had received emergency care for SIB had committed suicide one year later (Howson, Yates & Hatcher, 2008). Indications that SIB may indeed suggest a risk for later suicidal behavior make further study even more important.

The focus of the current research was to explicate the dispositional and situational vulnerabilities that predict SIB in the general population and investigate the often mentioned, but under researched function as a coping strategy. Until recently, research has been primarily descriptive and focused on special populations. For example, early research on SIB involved mostly mentally retarded, autistic (Barrera, Violo & Graver, 2007), and other disabled populations (Fliege, Kocalevent, Walter, Beck, Gratz & Gutierrez,
in describing SIB, several authors have indirectly alluded to a style of coping that is closely aligned with mental or behavioral disengagement. This coping style is known as escape coping and is defined as emotion-focused efforts aimed at reducing the negative feelings associated with a stressful condition (Latack, 1986). Escape coping is effective in relieving negative feelings associated with anxiety, disappointment, dejection, and depression in the short term, but research concerning chronic escape-style-coping indicates long-term negative outcomes. Chronic escape-style-coping has been found in association with inferior physical and psychological health (Penley, Tomaka, & Wiebe, 2002; Rioli & Savick, 2003) including poor illness recovery outcomes (Lehto, Ojansen, Dyba, Aromaa & Kellokumpu-Lehtinen, 2006) and symptoms of workplace burnout and depersonalized manner (Rioli & Savick, 2003). Escape coping may be of interest in researching SIB because, when attentional resources are used to attend to physical sensations of the body, the processing of other disturbing information is theoretically reduced, resulting in a feeling of relief.

Two recent studies suggested that SIB may be used to cope with emotional difficulties (Gratz, 2006) and to stop negative feelings (Nock & Prinstein, 2004), however a direct link with escape-style coping has not been investigated. Research monitoring physiological responses has also provided some evidence for SIB functioning as a form of escape-style of coping. For example, Nock and Mendes (2008) found that self-injurers displayed low tolerance for distress in completing a difficult task and Barrera, Violo and Graver (2007) found patterns in physiological arousal where heart rate was highest pre-SIB and dropped during the SIB episode or seconds after. In both studies, authors suggested that self-injurers might use SIB to cope with, or escape from, the hyperarousal they may feel in meeting everyday challenges. Engaging in SIB forces individuals to redirect their attention, and may create a temporary escape from distress or difficulties. This type of narrowed focus is worthy of further examination and has been discussed by social psychologist Roy Baumeister in his escape theory.

**Escape Theory**

Baumeister (1989, 1991a, 1991b, 1997) has conducted extensive research concerning narrowed focus and suggests that aversive self-focused attention often assumes the role of the “stressful condition” pertinent to escape coping. Self-focused attention has been defined as an awareness of self-referential, internally generated information as opposed to externally generated information, derived from sensation and perception (Ingram, 1990). Directing attention to the self is adaptive as it aids in self-evaluation allowing individuals to adjust behavior to meet social standards, however, self-focus can also be distracting, inhibiting and defeating (Duval and Wicklund, 1972). In Baumeister’s escape theory it is suggested that individuals escape aversive self-awareness through narrowing focus to a meaningless portion of the self-concept. When focus is narrowed to current sensations and body movements, awareness shrinks to the immediate time and all other thoughts are excluded, preventing meaningful thought about the self (Baumeister, 1991a; 1991b; 1995; Baumeister & Boden, 1994). The idea is that the self is minimized to its most basic element. “Escaping from the self is, more precisely, an escape from identity into body” (Baumeister, 1991b, p 17). When individuals are faced with situations they perceive to be irreversible and uncontrollable, they may cope with
mental disengagement to remove the painful reality from awareness (Mikulincer, 1996). Although SIB has not been directly investigated as an escape behavior, a connection could be evidenced linking SIB with other behaviors identified as escape-style coping mechanisms.

**Escape Behaviors**

Studies have indicated that individuals may use many methods to escape self-focus. Substance use (Aloia, Williams, Drew & Spievak, 2009; Hull & Young, 1983a; Spievak, 2003), binge eating (Heatherton & Baumeister, 1991), and compulsive physical exercise (Spievak, 2003) have been correlationally and experimentally linked to both escape-style coping and self-focus. In addition, Baumeister (1991b) suggests that sexual masochism provides an outlet of escape for some and research on gambling has shown that problem gambling was comorbid with other escape behaviors such as heavy drinking, binge eating, and tobacco and marijuana use (Engwall, Hunter & Steinberg, 2004). SIB has been indirectly linked with many of these escape mechanisms, most clearly with alcohol abuse (O’Laughlin and Sherwood, 2005) and masochism, which includes elements of self-harm. Additionally, suicide, the ultimate escape behavior (Baumeister, 1990), is sometimes seen in connection with SIB (Hawton & Harriss, 2006; Howson, Yates & Hatcher, 2008).

Baumeister (1991b) suggests that individuals reduce self-awareness by narrowing focus to physical sensations and each of the behaviors described above appear to function just as Baumeister described. SIB could certainly compel attentional focus on immediate behaviors and sensations, thus potentially qualifying it as an escape-style-coping mechanism. Though each of the described behaviors could be described as self-injurious, SIB has not been investigated in conjunction with escape-style coping mechanisms or self-focused attention. Research on time perspective, however, suggests a connection between the ruminative behaviors in self-focused attention and the types of negative health behaviors similar to SIB.

**Time Perspective**

Time perspective (TP) is defined as cognitive process partitioning human experience focused predominantly on one of the three time zones (i.e., past, present, or future) (Holman & Silver, 1998; Zimbardo, 1999). Both present TP and past TP have been seen in association with many correlates of interest to this study, but there is little evidence that a connection between SIB and TP has been explicitly studied. Evidence for a link exists, however. For instance, one study (Swanston, Nunn, Oates, Tebbutt, & O'Toole, 1999) employed a sample of 60 sexually abused and non-abused young people and indicated that those who had self-injured in the past year were significantly less hopeful about the future and in another study, women who reported frequent SIB also reported significantly higher levels of difficulties engaging in goal-directed behaviors when distressed (Gratz & Roemer, 2008), perhaps due to pessimism concerning the future outcomes of these goals. Glassman and colleagues (2007) have noted a gap in the literature, mentioning that future research is needed concerning SIB and temporal relations.

<table>
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<tr>
<th>Table 1: Study 1 Intercorrelations</th>
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<tr>
<td>Scale, Subscale or Survey Question</td>
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<tr>
<td>1. SIB</td>
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<td>2. Self-focus</td>
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<td>3. Self reported “rush” from gambling</td>
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<td>4. Skipping important events in order to gamble</td>
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<td>5. Self reported exacerbation of injury due to exercising too heavily</td>
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<td>6. Self reported exercising too intensely</td>
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<td>7. Coping with substances</td>
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<td>8. Coping with self-distraction</td>
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<td>M</td>
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<tr>
<td>SD</td>
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p < .00, * p < .05, ** p < .01
In one attempt to address the need for further research, Aloia and colleagues (2009) conducted a study on self-focus and escape-style-coping and found evidence for a connection between past time perspective and escape behaviors. The correlational analysis was based on a sample of 63 undergraduates who had completed a survey on coping. Results indicated there was a significant positive correlation between coping with substances and past TP and a positive correlation was found between past TP and trait self-focus. The researchers concluded that chronic self-focus might facilitate the development of escape as a coping style and that the combination of past TP and high trait self-focus might indicate vulnerability for addictions or other negative health behaviors.

Current Research
The current studies were undertaken to address a gap in the literature regarding self-injurious behaviors and its connection to escape-style coping and self-focus. It was hypothesized that those individuals who reported engaging in SIB would also be high in self-focus and report other related escape-style coping behaviors. This knowledge would be valuable to cognitive, social and clinical psychologists in their understanding, assessment, and treatment of SIB. Study 1 addressed this hypothesis with correlational and ANOVA analyses of archival data, and Study 2 was a follow up study comprised of a similar analysis, but based on a survey equipped with more complete scales addressing health behaviors and coping styles.

STUDY 1

Method
Participants. Participants were 103 undergraduate students from Bridgewater State College, between the ages of 18 and 39 (M = 20.4). There were 66 females and 37 males in the study. The sample was mostly Caucasian (N = 78). The students were recruited through the psychology subject pool and were mostly from the introductory psychology course, but some other psychology courses also offered participation in research as a way to earn extra course credit.

Materials. Measures on a paper-pencil survey included the Deliberate Self-harm Inventory (Gratz, 2001), the self-focus temperament scale (Spievak, 2003), a portion of the Coping Strategies Questionnaire (CSQ; Rosenstiel & Keefe, 1983), an incomplete Brief COPE (Carver, 1997), the Temporal Orientation Scale (TOS; Holman & Silver, 1998), and questions addressing gambling and exercise attitudes.

Procedure. The data was originally collected using the Bridgewater State College research lab during October of 2008. After reviewing a consent letter that advised them of their rights, participants responded to the paper and pencil survey in groups of one to ten. IRB approval was obtained and participants were treated in accordance with APA guidelines.

Data Analysis. Archival data was entered and analyzed in the spring of 2009. Participants’ scores for individual SIB behaviors were discrete variables, but (similar to Gratz & Roemer, 2008) were compiled into a continuous variable based on the number of SIBs reported, while the other scales were scored as directed by the authors of existing scales or, in the case of gambling, and smoking behaviors, based on the means of the items in each scale. Descriptive statistics were generated followed by a correlational analysis of significant variables. As a final analysis a one-way between subjects analysis of variance (ANOVA) of grouped individual difference data was done to explore the effects of self-focus and TP.

Results. In order to investigate the hypothesized link between SIB, self-focused temperament and escape-style coping, data was examined for patterns of behaviors and personality traits previously linked with the constructs. Correlational analysis supported the hypothesis that participants who engaged in SIB would be higher in self-focus (r = .40, p < .01). Moreover, results showed that individuals who reported engaging in SIB also responded to items addressing escape-style coping mechanisms such as smoking, gambling, and excessive exercise. Further intercorrelations of interest are reported in Table 1. The ANOVA was completed in order to test the hypothesized interaction between self-focus and past orientation, and examine their individual and combined influence on self-injury. Scores from the relevant scales were sorted and the highest third and lowest two-thirds were compared. Those who scored in the highest third of both the self-focus scale and past orientation subscale reported significantly higher incidences of SIB. There were significant main effects for both self-focus (F(1,95) = 9.43, p < .003, η² = .09) and past TP (F(1,95) = 5.29, p < .024, η² = .053) in predicting frequency of SIB. In addition, the interaction between self-focus and past TP (F(1,95) = 7.07, p < .009, η² = .069) was a significant predictor SIB frequency. Table 2 displays the means for the ANOVA groups.

<table>
<thead>
<tr>
<th></th>
<th>Low Self-Focus</th>
<th>High Self-Focus</th>
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<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Past TP Low</td>
<td>.717</td>
<td>1.49</td>
</tr>
<tr>
<td>Past TP High</td>
<td>.539</td>
<td>.967</td>
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</table>

Table 2: Study 1 ANOVA Based on Reports of Any Self-injury
Discussion. In line with previous research indicating a positive correlation between self-focused attention and other harmful behaviors (Baumeister, 1991b; Heatherton & Baumeister, 1991; Hull & Young, 1983b; Spievak, 2003), results indicated a positive relationship between SIB and self-focus. Additionally, results suggest that those who engaged in other escape behaviors may also use SIB as an escape-style-coping mechanism. Although correlational research cannot support causal claims, these findings support the hypothesis that SIB may function as an escape from the negative affect associated with high levels of self-focus. As past TP was previously linked with self-focus (Aloia et. al, 2009), the significant interaction between these variables found in the ANOVA was supportive as well, especially given that the interaction was a significant predictor of SIB frequency. Despite the fact that the Study 1 survey was not designed as an examination of SIB and was limited by the available scales, results were encouraging, suggesting that further attention be paid to better address the hypothesis. The data for Study 2 allowed for a more thorough investigation of the research questions.

STUDY 2

Method
Participants. Participants were 151 undergraduate students from Bridgewater State College, between the ages of 18 and 54 ($M = 20.98$). There were 114 females and 37 males in the study. The sample was mostly Caucasian ($N = 129$). Like Study 1, students were recruited through the psychology subject pool. IRB approval was attained for this study and participants were treated in accordance with APA guidelines.

Materials. The DSHI (Gratz, 2001), the self-focus scale (Spievak, 2003), TOS (Holman & Silver, 1998), and the gambling questions remained consistent with Study 1 and two scales, the brief COPE and the CSQ appeared in their entirety. Many scales were added to the new survey to include the identify traits previously linked to the variables of interest. These scales include the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999), the State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970), the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979), the Exercise Dependence Scale-Revised (Hausenblas & Downs, 2002), an adapted Michigan Alcohol Screening Test (MAST; Selzer, 1971), and the interoceptive awareness subscale from the Eating Disorder Inventory (EDI; Garner, Olmstead & Polivy, 1983). Also, two scales were used to measure trauma symptoms including The PTSD checklist-civilian version (PCL; Weathers, Litz, Huska & Keane, 1994) and The Trauma Symptom Checklist 40 (TSC; Briere & Runtz, 1989). Additional items added inquired about depressed mood, the presence of childhood abuse, and also asked participants to report the severity of any abuse.

Table 3: Study 2 ANCOVA Based on of Any Self-injury

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<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>N</th>
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<tr>
<td>Self-focus</td>
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<tr>
<td>Low</td>
<td>1.529</td>
<td>2.420</td>
<td>51</td>
</tr>
<tr>
<td>High</td>
<td>1.259</td>
<td>2.420</td>
<td>51</td>
</tr>
<tr>
<td>Past Negative TP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>.733</td>
<td>1.799</td>
<td>101</td>
</tr>
<tr>
<td>High</td>
<td>1.306</td>
<td>2.033</td>
<td>49</td>
</tr>
<tr>
<td>Past Positive TP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>1.553</td>
<td>2.320</td>
<td>47</td>
</tr>
<tr>
<td>High</td>
<td>.631</td>
<td>1.590</td>
<td>103</td>
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</tbody>
</table>

Procedure. Participants completed a paper and pencil survey comprised of scales relating to general information, health behaviors, attentional orientation, time perspective, and coping behaviors. The surveys were completed in small groups of one to ten people. Participants reviewed a consent form advising them of their rights before beginning the survey. Participants were treated in accordance with APA guidelines and generally took no more then an hour to complete the questionnaire.

Data Analysis. Just as in Study 1, participants’ responses to SIB questions were summed to create a continuous variable based on the number of SIBs reported. Then descriptive, correlational, and ANOVA results were examined. For Study 2 analysis of covariance (ANCOVA) was also performed. Then, the continuous variables (self-focus temperament, past negative, and past positive) were broken down into discrete variables for purposes of showing the directionality of effects.

Results. A correlational analysis was conducted to measure the relationship between SIB frequency and specific scales, subscales, or items as indicated by the hypotheses. Replicating Study 1, a significant positive correlation was found between SIB and self-focus. Significant positive correlations were also found for childhood maltreatment, trait anxiety, trauma and PTSD symptoms, and smoking and alcohol addiction. Positive correlations between SIB and catastrophizing, coping with behavioral disengagement and with self-blame were also significant. There was a negative correlation between interoceptive awareness and SIB. Intercorrelations values and their significance appear in Table 4.

As in Study 1, an ANOVA was completed using the Temporal Orientation Scale (TOS). Study 1 results regarding the
interaction between past TP and self-focus were not replicated. However, when the past negative TP and past positive TP subscales of the Zimbardo Time Perspective Inventory (ZTPI) were used instead of TOS, the results did support the hypotheses. In the analysis of both subscales, those with higher scores in self-focus engaged in SIB at higher rates. Additionally, an interaction between past positive TP and self-focused temperament \( F(1, 146) = 4.08, p < .05, \eta^2 = .03 \) was found to be significant, indicating that those who had higher scores in self-focus combined with lower scores in past positive TP engaged in SIB at higher rates. ANCOVA revealed that both self-focused temperament \( F(1, 148) = 4.16, p < .05, \eta^2 = .03 \) and past positive TP \( F(1, 148) = 12.69, p < .00, \eta^2 = .08 \) to be significant covariates in predicting SIB. The effects were in the hypothesized direction, as demonstrated by the group means shown in Table 3.

Discussion. Study 2 was successful in meeting all primary objectives and served to provide more support for the hypotheses. Those individuals who reported self-injury were also high in self-focus and reported other related escape-style coping behaviors. Additionally, correlations with both coping and behavioral disengagement and coping with self-blame supported the suggestions in past research that SIB might be related to escaping or displacing negative feelings. Study 2 also replicated many of the findings from Study 1 including results regarding the hypothesized positive correlation between SIB and self-focus temperament, smoking, and coping with substances. The ANOVA could not be replicated with the TOS, but results from the ZTPI showed a significant interaction between self-focused temperament and past positive time perspective in the hypothesized direction.

Summary and Concluding Discussion

Upon discovery of a gap in the literature, the current studies were designed to directly investigate SIB as a coping mechanism and escape behavior. The hypotheses were developed based largely on the available clinical findings and were tested using two non-clinical samples of young adults. These samples yielded results parallel those present in clinical literature. Encouraging results produced in Study 1 prompted the development of Study 2, a replication and expansion of Study 1.

In contrast to much of the clinical literature, results from the general population samples made use of self-reported symptoms of psychopathology rather than actual diagnoses. However, the results were comparable to clinical findings. For example, a significant negative correlation between SIB and positive mood was reported in the current study, providing support for the link between SIB and depression found in the clinical literature (Swanston, et al., 1999). This link is not surprising and may even explain other significant correlations found in the current studies such as the positive correlations found between SIB and both coping with self-blame and catastrophizing. In one recent study, these coping strategies (along with rumination and positive reappraisal) were shown to play an essential role in the reporting of symptoms of psychopathology including depression and anxiety (Garnefski, Legerstee, Kraaij, Van Den Kommer & Teerds, 2002). The findings regarding coping styles that include catastrophizing and self-blame compliment findings that self-injurers had a low tolerance for distress and hyperarousal (Barrera, Violo & Graver, 2007; Nock & Mendes, 2008). In self-blame, attention is turned inward provoking negative thoughts about the self, and in catastrophizing, negative thoughts build upon one another creating a sense of heightened hyperarousal. Perhaps a tendency to use these two maladaptive coping strategies triggers the need for an escape response, creating a vulnerability to SIB.

The above pattern of correlates provides support for SIB under the hypothesized theoretical framework, but additional correlates can be used to make even further connections. SIB and childhood maltreatment were strongly linked in Study 2, as they had been in the literature (Glassman, et al., 2007; Gratz & Roemer, 2008; Weierich & Nock, 2008). Researchers have found many mediators for the relationship between childhood maltreatment and SIB. Such mediators include self-criticism (Glassman, et al., 2007), limited access to emotional regulation strategies (Gratz & Roemer, 2008), and PTSD symptoms (Weierich & Nock, 2008). Although the current studies did not investigate variables as mediators, strong correlations were found between SIB and self-blame, interoceptive awareness, PTSD symptoms, and scores on the Trauma Symptom Checklist. Interoceptive awareness was negatively correlated indicating that self-injurers tended to have difficulties in understanding their feelings and cognitions, possibly due to, or perpetuated by, the limited access to emotional regulation strategies, (as suggested in Gratz and Roemer, 2008). Poor interoceptive awareness and anxiety seem to contribute to vulnerability to maladaptive coping, and in combination with childhood maltreatment may lead to the development of SIB.

In Study 2, as in the literature, SIB was significantly positively correlated with trait anxiety (Klonsky & Olino, 2008). Replicating previous findings (Spievak, 2003), anxiety was also correlated with self-focused temperament and several maladaptive coping strategies. These coping strategies include coping with substances, self-distraction, behavioral disengagement, self-blame, and catastrophizing. Interestingly, both self-focused temperament and SIB were also connected to these coping strategies. This pattern of correlates, together with a positive relationship between self-focus temperament
and SIB, supports the hypothesis that self-focused temperament may reflect maladaptive coping such as escape-style coping. Also, given these results, it is likely that SIB is an escape behavior exacerbated by the anxiety associated with self-focus temperament.

Results suggested that time perspective is another variable of interest in predicting SIB. Both the ANOVA and ANCOVA showed evidence that past TP, characterized by ruminating in the past, was linked to self-focused temperament. As mentioned, previous literature has found coping with ruminations in association with the reports of both depression and anxiety symptoms (Garnefski et al., 2002). Zimbardo and Boyd (1999) have specifically linked past-negative TP to depression, unhappiness, anxiety, aggression, and low self-esteem, while past-positive TP has shown the opposite correlations. These correlations, along with similar patterns revealed in the current work, support conclusions that self-focused temperament can be both inhibiting and defeating (Duval, Wicklund & Fine, 1972). Support was also shown for the hypothesis that self-focus temperament creates a vulnerability for SIB, as SIB was related both in this study and others with depression (Swanson, et al., 1999), anxiety (Klonsky & Olino, 2008), and low self-esteem (Rodham, Hawton & Evans, 2005).

Correlational results cannot yield a causal claim presenting a limitation to the current studies. In order to provide more conclusive support for the theoretical model proposed, further research is needed concerning SIB, self-focused attention, and coping styles, perhaps in an experimental setting. Research of this type may be possible with the use of a questionnaire to assess SIB, an impossible task to induce a state of self-focused attention (as in Spievak, 2003), and physiological monitoring equipment. A scale assessing reasons for SIB could also add important data to a follow up study possibly speaking more to the possible function of the behavior in relation to coping. Any further testing of this model would serve to better identify the correlates, causes, and functions of SIB.

As for the current studies, results have implications in both the scientific and clinical communities. Psychologists interested in cognition can appreciate the suggestion that a psychological process of directing attention may in fact be a catalyst responsible for overt behaviors, while a social psychologist may be more interested in the role of child abuse as applied to Baumeister's theory of escaping the self. The results of these studies concerning SIB, coping, anxiety, and damaging health behaviors are of definite interest to clinicians who could use these results to further their understanding of patients struggling with SIB. Furthermore, knowledge of these connections could assist clinicians in their assessment screenings and treatment strategies for patients. In addressing SIB, clinicians may wish to screen for potential past trauma, such as childhood maltreatment, substance use problems, and the presence of other escape behaviors, as it is possible that SIB is simply a symptom of larger problems. Also, according to findings concerning coping, clinicians may be most successful in aiding self-injurers with the use of coping skills training. These new types of screenings, treatments, and understandings could have implications for psychologists, self-injurers and their family and friends. Further study is warranted.

References


Table 4: Study 2 Intercorrelations

<table>
<thead>
<tr>
<th>Scale or Subscale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>1. SIB</td>
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<td>2. Self-focus</td>
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<td>3. Trait anxiety</td>
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<td>.653**</td>
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<td>-.232**</td>
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The section of National Conference on Undergraduate Research includes some work that was produced under an ATP Summer Grant, but then presented at this prestigious annual conference. Student submissions for this conference face rigorous competition from applications from across the nation.
The field of philosophy is unique, as it allows one to logically examine issues in all disciplines, from science to politics to art. One further important discipline that philosophy examines is criminal justice. In this respect, one approach philosophy can take when examining criminal justice is to assess each issue by questioning its morality—that is, whether an action within the issue is right or wrong based upon a system of ethics. This approach concerns the subfield of philosophy known as ethics, a subfield that includes questions concerning what is morally good and morally bad. When one is faced with an ethical situation, one must decide whether or not the action is morally good. It is important for one to understand that these issues in question, especially those in the field of criminal justice, provide great topics for debate and discussion. It is within these debates and discussions that individuals support their beliefs of the morality of an action with ethical systems.

It is crucial, for the sake of argument, that the individuals involved agree on the definitions and understanding of terminology used to avoid miscommunication. As this research concerns the issue of torture in a post-9/11 society, I will clearly define torture, suspected terrorist and interrogation in the context I wish to use each term. Torture is any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession (Hamm, 2007). In regards to who is being tortured, I shall focus on suspected terrorists which, in this case, are those that are believed to have any information regarding terrorist activities, those that harbor terrorists and those that commit acts of terror according to U.S. intelligence. Finally, these acts of torture of suspected terrorists usually occur during sessions of interrogation. I define interrogation as any point in which a suspect is being questioned or asked to provide information on any event surrounding acts of terror, terrorist activities or one’s involvement with those that commit acts of terror.

Part I: Literature Review
The issue of torture has been the focal point of discussion of researchers both in the field of ethics and in the field of criminal justice. In order to fully understand the issue of torture, one must become acquainted with several aspects that are involved. These aspects include the laws that prohibit/inhibit torture, torture typology, techniques that are used for retrieving information.
from the suspects, the personnel that apply these techniques, the victims of torture and the locations of the acts of torture. There is a great collection of literature, research and discussion on the issue of torture, as well as the surrounding aspects previously mentioned, of which this portion of my work is dedicated.

The laws regarding torture in the United States have been the focus of debate in the last decade, more specifically, since September 11, 2001. Though the focus is fairly recent, the laws that are scrutinized regarding torture date back to those constructed by the framers of the U.S. Constitution in 1776. After the Declaration of Independence, many colonies wrote state constitutions using Virginia’s state constitution as the model (Skoll, 2008). Virginia dedicated section eight of their state constitution specifically to self-incrimination. As stated in section Eight, “…nor can he [the citizen of the state] be compelled to give evidence against himself” (as cited in Schwartz, 1971). Although this law was created in the eighteenth century by the framers of the U.S. Constitution, there has been a great deal of controversial issues surrounding it. Take, for example, the case of Brown v. Mississippi (1936). This case was ruled in favor of the defendant, Ed Brown, who was charged with the murder of Raymond Stewart. The defendant was one of three black males that were beaten, hung and tortured by the sheriff and other people gathered at the crime scene (Brown v. Mississippi, 1936). Brown was tortured and beaten until he admitted to the murder of Raymond Stewart. After a series of appeals, the Supreme Court ruled that Brown’s Fourteenth Amendment right to due process and Fifth Amendment right to self-incrimination had been violated, and so the decision was reversed. This was the first case in which the Supreme Court reversed a decision based on torture (Skoll, 2008). The next case in which the court more clearly defined torture, and a stronger foundation for which future rulings could rely upon, is the case of Chambers v. Florida (1940). In this case, the court ruled that any act of persistent questioning, which is different than prior cases because this one concerns non-physical events, is considered an illegal act that is comparable or even equivalent to torture (Khasin, 2009). One must understand that in regards to the laws prohibiting torture that the court, in this case, did not make a ruling based on a specific torture law; rather, they made their ruling based on the results of the torturous acts which violated the Fifth and Fourteenth Amendments.

Torture, as is the case with many other practices that concern the criminal justice system, has long been studied and analyzed. In order to obtain a better understanding of torture and its intentions, one must become acquainted with torture typology. There are three types of torture, as illustrated in the work by Christopher Tindale, The Logic of Torture: A Critical Examination (1996). The three types of torture are interrogational torture, deterrent torture and dehumanizing torture (Tindale, 1996). Each type of torture has a purpose, or intent, which is used to determine which kind of torture is being used in each event. This typology also states that each incident of torture can be categorized under one type; however, it may also fall under more than one type.

The first type of torture is referred to as interrogational torture. As with each type of torture, interrogational torture has a specific goal. This type of torture is used to extract information from an individual (Tindale, 1996). Under this notion, torture limits its victims to those that are believed to be the possessors of crucial information. The second type of torture is deterrent torture. Here, torture is used to either encourage or discourage the actions of a suspect or population (Tindale, 1996). Deterrent torture does not have a limit to the scope of its victims; more clearly, victims can be randomly selected. This random selection is said to be the factor that would satisfy its goal of deterring criminal behavior. The victims of this type of torture are thus not limited to suspects or, for the sake of this research, suspected terrorists. Deterrent torture uses the pain and suffering of the victims, who are generally innocent people with no pertinent information regarding the crime that is, has or is about to be committed (Tindale, 1996). The third type of torture is referred to as dehumanizing torture. The goal of dehumanizing torture is to change the self-conception of the individual. Here, dehumanizing torture can be a brutal form, more so than others, because the culture, religion or beliefs of the victim are targeted in which the torture will violate these aspects to humiliate, or, dehumanize the suspects (Tindale, 1996). In regards to the torture of suspected terrorists, this type of torture plays a crucial role in the argument to be presented on the issue of morality later in this paper.

In many instances, the individuals that carry out the act of torture are the center of attention. This is particularly evident in cases of torture that occur on U.S. soil. Domestic cases of torture, generally speaking, occur during interrogation situations between law enforcement officials and suspects. The law enforcement officials carrying out interrogations consist of agents in the federal sector (i.e. FBI, DEA, ATF) and police officers from the local, county and state departments. Since the terrorist attack of September 11, 2001, there has been a noticeable change in interrogation tactics and standards (Stewart & Morris, 2009). There have been many claims that suggest policing has entered a new era, an era now referred to as the ‘homeland security era’ (Stewart & Morris, 2009). This era focuses on the issues of terrorism and prioritizes threats of terrorism over any other crime.
Although torture is not a dominant domestic concern, there is a relationship between torture and interrogation. The traditional use of torture has been for the extraction of information, which falls under the category of interrogational torture (Tindale, 1996). This is an important factor in this research because the idea that the information one is withholding can be extracted via torture is the main justification behind torture. This is most evident, as far as domestic cases or torture are concerned, in interrogations. In these interrogations, there are specific types of torture that are used on the suspect. However, these types are not nearly as severe as the types of torture reported outside of the United States. For example, one type of torture used by law enforcement officials in domestic cases is sleep deprivation. In the case of Ashcroft v. Tennessee, the suspect was questioned by police for a period of thirty-six hours without sleep or even rest (322 U.S. 143, 153-54, 1944). Sleep deprivation is a fine example of torture that is not as physical as whippings or beatings, but it is more psychological. Furthermore, the uniqueness of this type of torture is that the suspect is actually harming his or her own body by staying awake (Hamm, 2007). Due to the fact that the interrogators are not actually physically harming the suspects, one may find it difficult to prove that this is torture, depending on how one defines torture. Although torture on U.S. soil is not a prevalent issue, this is not the case with torture in countries outside of the U.S.

The most provocative and exploitive case of torture abroad in this post-9/11 society is the case of Abu Ghraib. Located in Baghdad, Iraq, Abu Ghraib was the prison in which the U.S. held suspected terrorists since the start of the war on terror. At this facility it was the job of the American soldiers, or more specifically, the Military Police (MPs), to run the facility as if they were corrections officers at any other prison. Abu Ghraib, however, was not like any American prison. The inmates consisted of several thousand men, women and children of all ages that were suspected of involvement or to have knowledge of terrorist activities (Kennedy, 2006). American soldiers were assigned to carry out missions in which their duty was to detain random Iraqi citizens and transport the detainees to prisons such as Abu Ghraib (Hamm, 2007). Once the detainees were processed and housed in the prison, the MPs and CIA agents were to carry out the “interrogation” process. This process required American soldiers, MPs and CIA agents to question the inmates in order to obtain any information they may have in regards to terrorism and terrorist organizations.

The first step in this interrogation process required the MPs and American soldiers to “soften up” the inmates for questioning by more highly trained interrogators, such as CIA agents (Hamm, 2007). The order of preparing inmates for questioning, or softening them up, was not only an order from the CIA but also from the highest point in the chain of command, President George W. Bush. Supporting evidence, as well as photographic evidence, reveals that orders and pressure from the chain of command from top to bottom encouraged soldiers, such as Private Lynndie England and Corporal Charles Grainer Jr., to do what it takes to obtain information from the inmates (Hamm, 2007). Some of the techniques used to soften up the inmates consisted of stress positions, forced removal of clothing, light deprivation and prolonged exposure to loud noises (Schlesinger, 2004). The aforementioned techniques were used while the inmates were in the prison, but do not include the treatment of the inmates while they were being detained during the random sweeps by U.S. soldiers. The treatment during the process of detaining the Iraqi citizens included being strapped to the hood of military trucks during transportation, receiving beatings in front of family members, being struck by rifles, being removed from their house in only underwear, and being denied to gather any clothes or items to maintain the proper hygiene (Hamm, 2007). This type of treatment was aimed to humiliate Iraqis, especially men, in order to weaken them and instill a strong sense of fear to allow the interrogators to successfully obtain information regarding terrorism and terrorist activities (Hamm, 2007).

While housed in the prison, the inmates faced cruel treatment from soldiers, CIA agents and MPs, such as Private England and Corporal Grainer Jr. The impact of the actions of these two soldiers plays a crucial role in the consequences of torture in this post-9/11 society, more specifically, during the war on terror. Photographs taken by Private England and Corporal Grainer Jr. and other accomplices reveal that the acts of torture and inhumane treatment that took place at Abu Ghraib were highly impactful (Hamm, 2007). The torturous acts of these two soldiers consisted of forcing Iraqi men to watch the abuse of loved ones, mutilation via dog bites, asphyxiation, burning, stretching and forcing the inmates to eat pork and drink alcohol to violate the customs and standards of their religion (as cited in Marks, 2005). The torture took place in all corners of the prison such as showers, hallways, cells and vehicles—hence, the reason why soldiers referred to it as its own hell (Hamm, 2007). One Abu Ghraib detainee would later recall: “We suffered. We Wept. We kept silent” (Kennedy, 2006). These acts of torture were so impactful on how Americans were viewed by the Iraqi community, as well as the Islamic community, due to the fact that this torture scandal was documented by photographs. These photographs were released upon the media discovery of the torture of inmates in April of 2004 on the CBS television program 60 Minutes II. The pictures soon emerged on national news broadcast stations such as CNN and, even internationally, on Al-Jazeera (Hamm, 2007). The Islamic community, as well as the rest of the world, was outraged by the torture of...
inmates by U.S. soldiers. Just four days after the entire world was introduced to Abu Ghraib, terrorist leader Abu Musab al-Zarqawi released footage on an Islamic militant website of the beheading of American journalist Nicholas Berg. The video began with Abu Musab al-Zarqawi making remarks about the released photos of the Abu Ghrabi torture incident and the footage revealed that the victim was wearing a jumpsuit similar to the ones that Iraqi inmates wore at Abu Ghrabi (Hamm, 2007). The reports of the Abu Ghrabi torture scandal by both the U.S. Army and the International Committee of the Red Cross would later reveal that upwards of 85% of the inmates at Abu Ghrabi were innocent and contained no information on terrorist activity (Hamm, 2007).

Another issue that involves the torture of suspected terrorists includes the notion of rendition. Rendition is the system of sending captives to other countries with less progressive human rights standards in order to interrogate them more aggressively (Moher, 2004). Under rendition, the United States sends captives to locations throughout the world where interrogators could torture the captives without any limitations set forth by civil rights (Altheide, 2009). The notion of rendition is interesting because it allows the United States to torture suspects, or in this case, suspected terrorists, and officials will not have any direct knowledge of it since it takes place outside the U.S. (Moher, 2004). Thus, without having knowledge of the possible acts of torture that may occur, the U.S. avoids breaking any laws that prohibit the use of torture. Although the U.S. can evade breaking laws by practicing rendition, it does however open the door for extremely harsh torture techniques, due to the fact that there are little to no laws that protect the suspects from this amount of cruelty. The case of Abdul Hakim Murad in 1995 presents itself as a fine example of the extreme torture that can occur under the act of rendition. Murad was sent to the Philippines for interrogation where he was tortured for over two months (Moher, 2004). The techniques involved in this act of torture included beatings with large pieces of wood (which broke his ribs), forced water into his mouth and crushing lit cigarettes in his genital region (Moher, 2004). Although the act of rendition is not common, it is yet another process in which the United States can torture suspects while ensuring they do not break any laws prohibiting torture.

At this point, all of the relevant facts and necessary knowledge regarding the issue of the torture of suspected terrorists has been presented and explained. With the current facts of the issue of torture presented, the question of this research comes to the forefront. Namely, is it ethical for the United States to torture suspected terrorists in a post-9/11 society? If so, what is the ethical justification one can use to ground such torture? If not, what are the moral reasons one must follow to hold that torture is unjustified? In order to analyze and evaluate the moral issue of torture, one must become acquainted with an ethical theory that can be applied in order to properly determine whether or not torture is moral or immoral.

Part II: Ethical Theory

The field of ethics consists of many types of ethical theories that lay out a detailed system which one can use to evaluate the morality of an action, that is, whether or not an action is right or wrong. As with every set of choices in which one is faced, the individual can evaluate the available options and weigh their own values in choosing to act in such a way that is morally good according to one’s beliefs. Ethics and ethical theories are unique because they can be applied to any situation under any circumstance. Although there are many ethical theories in which one can apply to a situation to determine morality, the focus of this research rests upon one ethical theory: deontological theory.

The deontological theory of ethics is based primarily upon the work by Immanuel Kant, Grounding for the Metaphysics of Morals. The foundation of determining morality under Kant’s system includes the moral principle, which Kant refers to as the categorical imperative. Kant’s categorical imperative provides the formula one should use to determine whether or not one’s maxim, or personal inclination, can be made into a universal law. This is designed to determine morality due to the fact that it objectively reveals any logical contradictions, or factors that would make the maxim immoral, within the maxim itself. If the maxim does not hold a logical contradiction, then it can be made a universal law. As Kant explains, the categorical imperative can be formulated in the following way: “I should never act except in such a way that I can also will that my maxim should become a universal law” (Kant, 1993). This is also known as the universal formulation (Kant, 1993). By this, Kant means that, in order to determine whether or not an action is moral, one should determine whether or not it could be willed as universal in such a way that “the ordinary reason of mankind… agrees completely with this” (Kant, 1993). This simply means one cannot make the maxim a personal exception, but rather one must use reason to objectively determine the morality of the maxim. When determining the morality of a maxim, the categorical imperative allows one to see whether something is moral or immoral, while leaving no doubt in one’s mind regarding the answer.

To determine the moral value of any action, Kant maintains that the categorical imperative is formula one ought to use. For example, if a man were contemplating whether it would be moral or immoral to take his own life due to depression and dissatisfaction in life, he should evaluate his actions under
the categorical imperative. The act of taking one's own life due to dissatisfaction and unhappiness is immoral because there is a contradiction if it were to be made into a universal law. The contradiction is as follows. As beings of nature, in order to continue as existing beings in nature's system, we must continue life. If one decided not to continue life due to a feeling of unhappiness or dissatisfaction, nature's system of continuing life would be destroyed. In the end, the act of committing suicide for the sake of negative feelings will destroy our existence in nature's system which contradicts our original goal. Also, the act of taking one's own life is immoral on the grounds that one must never use a human being as a means. The act of suicide requires one to end one's own life to escape their unhappiness and dissatisfaction which is using oneself as a means, therefore, deeming this act immoral on more than one ground. However, in the same regard, if the same man decided that he will not take his own life, it would be a morally good act because he is following his duty as a being of nature to continue his existence. Therefore, according to the categorical imperative and Kant's system of ethics, this action is immoral.

It is important to note, however, that a maxim is not necessarily morally permissible just because it does not entail a logical contradiction. Kant specifically explains that the final step of evaluating the moral value of an action under the categorical imperative requires one to ask the following question: Would one rationally will this action into a universal moral law? Even though the action may not hold a logical contradiction, it is important that the action can rationally be made into a universal moral law. The following example will provide a better understanding of this notion. Imagine a scenario where a moral law exists that states one shall not help others in need. There is no logical contradiction here. However, there is still a problem. Would one rationally will this action into a universal moral law? If so, whenever a situation arises in which a person needs assistance from another, that person would not receive the assistance. One must not think about the consequences, but, rather think about the act. It simply does not make sense to make a universal moral law that restricts any form of one person helping another. Furthermore, even the individual that ponders the thought of willing this act into a universal moral law would, in turn, never receive help from others when in need. No rational individual would want to will this action into a universal moral law. Thus, just because a maxim meets the criterion prohibiting a logical contradiction, that maxim may still be deemed immoral should it not be rational to will this maxim into a universal moral law.

Now that Kant's deontological ethical theory has been presented, I will illustrate how this system of ethics provides the necessary logical foundation to prove that torture is immoral on any grounds. This theory will be further examined with examples that specifically regard the torture of suspected terrorists in a post-0/11 society. In doing so, I will present an argument supporting the current practice of torture. Next, using Kant's deontological ethics, I will illustrate how the argument in support of torture, from the Kantian perspective, is wrong. From the deontological viewpoint, one will be able to gain a better understanding for the moral examination of torture from an ethical perspective.

Part III: Discussion
The case of torture is a prime example which one can analyze and evaluate under Kant's deontology. In order to evaluate the morality of torture under this system, one must focus on two formulations of Kant's categorical imperative. The first formulation is the universal formulation, which we have discussed in the previous section. The second formulation is what we refer to as the practical imperative. This formulation states that one cannot use another human being as a means, that is, as a gateway to accomplish another objective: "Act in such a way that you treat humanity, whether in your own person or in the person of another, always at the same time as an end and never simply as a means" (Kant, 1993). In this section, I will first present an argument in favor of the practice of torture under Kantian ethics, on the grounds that torture can be construed as a morally good act. Then, I will proceed to evaluate this argument using the deontological criteria of evaluation. Finally, I will present my argument against the act of torture and show how torture is immoral according to Kant's ethical theory.

Many people maintain that torture is a necessary tool utilized by law enforcement officials worldwide for one overarching purpose: to obtain information regarding criminal acts. For example, in the case of Abu Ghraib, the prisoners housed in this facility were tortured by soldiers and federal agents in order to extract information regarding terrorism. Under Kant's deontology, one could argue that it is the moral (and civic) duty of the law enforcement official to do anything in their power to ensure that the homeland and its citizens are safe and secure from acts of terror. This is reinforced by the tragedy of September 11, 2001, where several thousand innocent Americans were killed due to an act of terror. The United States has since taken powerful action to prevent another tragedy from occurring. The duty of the soldiers, MPs and federal agents stationed at Abu Ghraib was to extract information from any individuals that may have information on links to terrorist organizations or terrorist plots. Since the enemy combatants or civilians in the Middle East region and, in particular, Iraq, are often hostile and violent toward Americans and soldiers in their country, it is safe to assume that the majority will not simply hand over this
type of information to interrogators. Due to this, the United States must make tough decisions to allow the torture of these enemy combatants to take place in order to fulfill their duty to extract information in the hopes of preventing any future acts of terror on Americans. In respect to Kant’s system of ethics, one may argue that torture is a moral act because the individual is simply fulfilling his or her duty as a law enforcement official or soldier, to ensure that the homeland is safe and secure of any threat of terrorism.

One may also argue that torture is a moral act through Kant’s categorical imperative. For example, if an individual was withholding information regarding terrorism and the United States needed that information to secure the safety of the homeland then some may argue that interrogators ought to extract that information in any way possible, even via torture. Under the universal formulation of the categorical imperative, this act could be deemed moral because it can be made into a universal moral law. For instance, if the United States were to make a law that stated any individual withholding information on terrorism is subject to torture, one can imagine that it could be made into a universal law as there is no logical contradiction. That is, one can imagine that all suspected terrorists are tortured in order to gain information without running into a logical contradiction that prohibits us from achieving the end of extracting information. It is logically possible to torture all suspects to achieve such sensitive information. Therefore, torture satisfies Kant’s categorical imperative because it can be made universal in cases where the governing body of a country is simply trying to carry out their mission in protecting the safety and security of their citizens.

On the contrary, I argue that, under both formulations of the categorical imperative (the practical imperative and the universal formulation), torture should be considered to be an immoral act. As such, the previous argument fails to fully apply Kant’s ethics to the issue of torture. To see why, let us examine torture under Kant’s practical imperative first, then re-examine torture under the universal formulation. Kant maintains that one cannot use another human being simply as a means (Kant, 1993). In any situation of torture, there is the interrogator(s), or torturer(s), and there is the suspect on the receiving end of the torture. Two out of three of the forms of torture, under Tindale’s typology, are intended to produce a result in which the interrogators can torture the suspect in order to extract information (in this case, the information is regarding terrorism). In order for the interrogators to accomplish their goal of extracting information from the suspect, they must treat the suspect as a means. That is to say, the suspected terrorist is treated as a means to achieving the end of obtaining the information. Although one can argue that, in order for law enforcement officials to carry out their duty, they must torture, the act of torture remains immoral because it violates the practical imperative since it treats the suspect as a means to an end. It is simply not possible for torture to be conducted without using the suspect as a means. Under Kant’s practical imperative, using any individual as a means to an end is immoral. Therefore, torture is immoral under Kant’s practical imperative on the grounds that it treats the suspect as a means in order to satisfy the goal of the interrogators.

Now that we have examined the morality of torture under the practical imperative, let us return to examine the morality of torture under the universal formulation. As previously mentioned, the universal formulation has a method that must be followed when one is determining the morality of an action. Furthermore, recall that, even if the action does not hold any logical contradictions, it can, however, still be deemed immoral according to the universal formulation. In order for an action to be deemed moral, one must be able to rationally will that act into a moral law. When it comes to the case of torture, I accept that there is no logical contradiction in the action itself. However, I argue that the act of torture is immoral under the universal formulation because one would not rationally will the act into a moral law. Take the following situation as an example. In the case of torture in Iraq and Abu Ghraib, any individual suspected of having information on terrorist activities or terrorism is subject to torture. If this were made into a moral law under the universal formulation, it would have to become a universal law. In this case, any individual suspected to be withholding information regarding terrorism is subject to torture. The problem with this moral law is the fact that the individuals that could potentially be tortured are only suspected of having information on terrorism. As we have seen in the case of Abu Ghraib, any individual can be suspected of having information on terrorism and, thus, be subject to torture. Furthermore, the individual that wills the act of torture into a moral law under these conditions through the universal formulation is also subject to torture. One issue that arises is the accuracy of these claims. In the Abu Ghraib case, most of the individuals that were tortured did not have any knowledge pertaining to terrorism or related activities (Hamm, 2007). Thus, one could not rationally will this law into existence, as the lawmaker himself or herself, would run the risk of being subject to torture on account of suspicion alone. But one would not want to rationally subject oneself to being treated simply as a means (i.e., an object of torture) to extract information that one doesn’t even have. Due to this, I maintain that because the individuals were simply suspected of having information regarding terrorism, it does not allow for the torture of these individuals, according to Kant’s deontology.
In conclusion, the act of torture and the surrounding issues have been a predominant debate worldwide since September 11, 2001. This issue raises personal feelings as well as questions of morality. It is difficult for one to objectively examine torture, more specifically, when regarding suspected terrorists. This examination is simply one perspective, or, one way of examining the act of torture under a system of ethics. The deontological theory of ethics put forth by Immanuel Kant proves to be an effective system when evaluating the morality of torture. As I have presented in this work, the act of torture is believed by some to be moral; however, under the Kant’s deontology, it is not.

References
The sections on Coursework include submissions that were originally produced as work for a course, but mentored under the revised review process.
Taking Refuge in “How:” Dissecting the Motives Behind Cholly’s Rape in *The Bluest Eye*

REBECCA ANDREWS

Most parents see parts of themselves in their children. They see their own familiar eyes, their sense of humor, and their long legs. Parents desire to nurture their child’s every hope and dream, and also want to raise their children in a safe and secure environment. However, what if a father saw in his daughter everything that he hated in himself? What if this same father never learned to love in a nurturing way from his own parents? The effects would be devastating. Toni Morrison examines such a scenario in her 1970 novel *The Bluest Eye* through the rape Pecola by her father Cholly Breedlove. The incestuous rape is nearly impossible for a reader to comprehend. While literary critics have postulated that the rape is the soul product of Cholly’s desolate past or an expression of his hatred of women, I argue that Cholly is giving his daughter the only form of love he knows how to express and is simultaneously abusing the image of himself as a child that Pecola embodies.

To better understand Cholly’s action of raping his own daughter, it is important for the reader to acknowledge his past. Since he was abandoned by both parents, Cholly did not grow up in an environment where he was successfully nurtured. His father skipped town when he found out that he had impregnated Cholly’s mother, who then abandoned Cholly in a trash pile soon after he was born. Cholly was left to be raised by his elderly Aunt Jimmy. Although Aunt Jimmy genuinely cared for him, he had difficulty connecting to her as a real parent. He even thinks as a child that “when she made him sleep with her for warmth in winter and he could see her old wrinkled breasts sagging in her nightgown ---then he wondered whether it would have been just as well to have died [in the trash]” (Morrison 132). If Cholly really saw her as a legitimate parent, then he would enjoy sharing a bed with her in winter. Sharing a bed with a parent is generally a pleasant memory for most children. Conversely, Morrison makes this moment between Cholly and Aunt Jimmy uncomfortable and loveless. Since Aunt Jimmy raised Cholly since birth, it would be expected that he would view her as his parent; however, his disgust of sharing a bed with her proves otherwise.

Cholly is also affected by his nonexistent relationship with his birth mother. Aunt Jimmy openly tells Cholly that “[his] mama didn’t name [him] nothing. That nine days wasn’t up before she threwed [him] on the junk heap” (Morrison 133). After this incident, Cholly “didn’t ask anything else” (Morrison 133). It is clear from this reaction that Cholly is bothered by the fact that both
of his parents abandoned him; he chooses never to ask more questions about his parents. Cholly understands from a young age that a parent/child relationship is not necessarily one that is filled with love. Cholly's first example of parenting was to be left nameless in a “junk heap,” and then later to be coldly reminded of it by his surrogate mother (Morrison 133). Cholly was not offered any example to show him how to foster a healthy and successful relationship between a parent and child.

By looking through Cholly's past, the reader should not be surprised that he is a broken man. Cholly was sent into the adult world with so little to prepare him for interpersonal relations. In the article “Failures of Love: Female Initiation in the Novels of Toni Morrison,” the critic Bakeman persuasively describes Cholly as being “set adrift by the death of his guardian, taunted and humiliated by white men during his first sexual encounter, [...] Because he] does not know about nurturing love, and feeling love, he is incapable of expressing it healthfully” (544). As people grow and mature, it is essential for them to have lessons on how to relate to others. Cholly never learned from a parent how to be a parent, and he did not learn from a first lover how to love. With so little to guide him, it is no surprise that this lack of nurturing love would catch up with him in a devastating way. However, his past is not enough to explain how he comes to rape his own daughter. Other aspects of the story, like Cholly's relationship with sex, and his feelings about his daughter Pecola, must be examined.

As Cholly grows older, he finds an outlet to express his affection for someone: sex. Yet Cholly's experiences with sex are still flawed. During his first sexual experience with a girl, Darlene, he is interrupted by two white men who make him continue for a long time. No sound, no sight, only darkness” (Morrison 157). Cholly runs away under a pier and he crouches only her tight, tight eyes were left. They were always-[hides behind [it] ---peeping out from behind the shroud very seldom” (Morrison 39). She frequently tries to make herself disappear to escape the reality of the world she lives in. When she tries to do this, “little parts of her body faded away. Now slowly, now with a rush…only her tight, tight eyes were left. They were always left” (Morrison 45). Pecola tries to disappear because she is so unhappy with not only herself, but also with everyone's reaction to her. She is a rejected child, and it is this quality that connects her with her father.

In The Bluest Eye, Pecola represents physical qualities that make Cholly feel both love and repulsion simultaneously. Pecola embodies what is wrapped up in the darkest moments of Cholly's childhood. She is ugly, and she “[hides behind [it] ---peeping out from behind the shroud very seldom” (Morrison 39). She frequently tries to make herself disappear to escape the reality of the world she lives in. When she tries to do this, “little parts of her body faded away. Now slowly, now with a rush…only her tight, tight eyes were left. They were always left” (Morrison 45). Pecola tries to disappear because she is so unhappy with not only herself, but also with everyone's reaction to her. She is a rejected child, and it is this quality that connects her with her father.

When Cholly is rejected by his own father, he too tries to make himself disappear. He is so devastated at being turned away by his father that he soils himself. This causes him to run away because “his father would surely emerge and see him and laugh. Oh, Lord. He would laugh… there was only one thing to do” (Morrison 157). Cholly runs away under a pier and he crouches “in the fetal position, paralyzed, his fists covering his eyes, for a long time. No sound, no sight, only darkness” (Morrison 157).
In this instance, Morrison is connecting father and daughter. Both of them feel rejection from someone who should love them, and they try to make it all go away by disappearing.

Moments before Cholly rapes his daughter, he has returned home drunk and sees her washing dishes. His first reaction to her is “revulsion,” which is “a reaction to her young, helpless, hopeless presence” (Morrison 161). He himself is a hopeless character who never received real love and affection from his natural parents, and he knows that he has given none to Pecola. The critic Vickroy writes that Cholly recognizes this: “because Pecola is like Cholly once was, small and impotent.” He begins to question why she should ever love him as a father, because he can offer her nothing. He considers that “if he looked her in the face, he would see those haunted, loving eyes. The hauntedness would irritate him, the love would make him to fury” (Morrison 161). Cholly could both be thinking of the love that was absent in his own father’s eyes when he was rejected. In this sense, Cholly sees Pecola as the physical embodiment of his desolate past.

This hatred for his own past makes Cholly disgusted with his own daughter. However, he also feels the failure of his own parenting when he looks at his daughter. Cholly is aware of his shortcomings, and he considers that “had he not been alone in the world since he was thirteen, knowing a dying woman who felt responsible for him, but whose age, sex, and interests were so remote from his own, he might have felt a stable connection between himself and the children” (Morrison 160-161). He recognizes that “as it was, he reacted to them, and his reactions were based on what he felt at the moment” (Morrison 160-161). Seeing Pecola as downcast only reminds him that he never learned how to parent. This makes Cholly feel hatred towards himself, as well as Pecola. The literary critic Vickroy expresses this idea well, arguing that “one way for him to rid himself of his fears is to project them onto Pecola, and in part he tries to destroy those fears by raping her.” Cholly has learned through his first sexual encounter that sex is an outlet for him to express this anger. In his own mind, the act of raping Pecola allows him to work through his feelings of anger and fear. What Vickroy does not consider is that Cholly’s rape is not as simple as combating his past; it is much more complicated.

Pecola at this moment also represents what Cholly associates with real love. Cholly first feels repulsion towards his daughter, but this soon dissolves into feelings of tenderness. Pecola’s action of “shift[ing] her weight and [standing] on one foot scratching the back on her calf with her toe” reminds Cholly of the first time he saw Pauline (Morrison 162). This action causes Cholly a different emotion which is “not the usual desire to part tight legs with his own, but a tenderness, a protectiveness” (Morrison 162). In this way, Pecola is bringing back one of the few true feelings of love that Cholly can recollect. Cholly does not initially have feelings of lust for Pauline, and likewise not initially with Pecola, but instead he experiences feelings of protectiveness and tenderness. These would seem to be fatherly emotions towards a daughter. However, Cholly does not know how to work with these feelings; he only knows how to react to them.

Morrison establishes that Cholly has never had an example of how to parent, how to love. When he is confronted with feelings of love for his daughter, Cholly reacts in a way that feels most natural; that reaction for Cholly is sexual. Even in his relationship with Pauline, the violence that occurs between them is “paralleled only by their lovemaking” (Morrison 43). Cholly is unable to express his love for his wife in any other way than sex. Likewise, when he has feelings of love towards his daughter, his reaction is unfortunately also sexual.

The moment after the rape completely illustrates the culmination of Cholly’s feelings of love and repulsion for his daughter. At this moment, Cholly is still completely intoxicated. He has not fully realized what has transpired, but immediately after he is sexually satisfied there is “again the hatred mixed with the tenderness” (Morrison 163). He is still battling the hate of his past, and the love he cannot appropriately express. Cholly demonstrates his internal struggle fully when “the hatred would not let him pick her up, the tenderness forced him to cover her” (Morrison 163). He meets these feelings in the middle when he leaves her on the kitchen floor covered by a blanket.

Cholly’s rape leaves the reader reeling. It is one of the harder scenes to understand in The Bluest Eye. One might even question what exactly Morrison was communicating through the inclusion of the rape. In her interview “The Pain of Being Black” with Bonnie Angelo, Morrison talks about her feelings concerning family. Morrison states that, “the little nuclear family is a paradigm that doesn’t work. It doesn’t work for white people or for black people;” she questions “Why are we hanging onto it?” These comments can help a reader to understand why Morrison allows the rape scene in The Bluest Eye. Morrison constructs the Breedlove family, a nuclear two-parent family, in The Bluest Eye that should theoretically work; their namesake would even suggest that they would breed-love. However, this family is led by an individual who cannot foster love in his own home. Morrison suggests in this interview that the nuclear family is not strong enough to raise healthy children, and instead argues that “you need a whole community—everybody—to raise a child.” In The Bluest Eye, Pecola, the victim of incestuous rape, is unfortunately rejected by the community around her. This is seen earlier in the novel.
when Cholly was rejected by the community as well following the death of Aunt Jimmy. It would follow that this rape serves as an example of the importance of the community raising the child, instead of the nuclear two-parent family. In *The Bluest Eye*, the devastation of both Cholly and Pecola could very well be rooted in the lack of community support around the family.

Cholly’s action of raping his own daughter can never be excused; it would not be fair to Pecola to do so. It is still difficult as a reader to fully understand why this rape had to occur. It is devastating for both Pecola and Cholly. The situation only leaves the reader asking why an action like this has to happen. Morrison comments on this perfectly when she writes that, “since the why is too difficult to handle, one must take refuge in how” (Morrison 6). Although how is a poor refuge, it is the only one that can be offered.

References


Reality, Skewed

KATHLEEN CAMERLIN

Don DeLillo’s novel White Noise explores basic human connections and illustrates how they shift when viewed through the lens of post-modernity. The protagonist, Jack Gladney, tries to validate and substantiate his own existence through the connections he forges not only with his job and studies but also with his family, attempting to find meaning in the way his relatives interact with each other and their post modern world, where it is “no longer possible to distinguish meaningfully between a generality embedded in life and a generality represented in representations of life” (Frow 420). In this fracturing, consumer-driven, postmodern world, what is “real” is hard to determine and therefore Gladney has nowhere universal to turn in order to assuage his fear of death. Although this fear is certainly not new or unique, the means with which he deals with it are altered because of the postmodern society in which he lives. However, the novel also shows that these social constructs are, ultimately, inadequate in shielding him from the fear and reality of his own death, and illustrates how it is perhaps even detrimental to place too much faith in the security of these connections.

One of the more obvious ways that Gladney tries to manipulate his reality to protect himself from the fear of death is to construct and hide behind a scholarly persona. He describes in detail the way he carved out a niche at the college in which he teaches by literally inventing his area of learning (Hitler studies). Because he was the first to think of it, Gladney is generally considered to be an expert on the subject by his fellow academics. Thus, Gladney’s scholarly authority takes second place to the appearance of his authority, where he makes sure to dress and act the part of a professor. He states, “The chancellor had advised me, back in 1968, to do something about my name and appearance if I wanted to be taken seriously. We finally agreed that I should invent an extra initial and call myself J.A.K Gladney…The glasses with the thick black heavy frames and dark lenses were my own idea” (DeLillo 17). This deliberate manipulation of his own appearance, the conscientious effort to embody what academia looks like, allows him a small feeling of security. States one of Gladney’s colleagues on his successes because of this effort, “You’ve established a wonderful thing here with Hitler…Nobody on the faculty of any college or university in this part of the country can so much as utter the word Hitler without a nod in your direction…He is now your Hitler, Gladney’s Hitler” (11). In this way, the culture’s focus on representations of reality, as opposed to reality itself, allow Gladney to become well known in the scholarly community.
Although he feels rather uncomfortable in this role, Gladney continues to try and perpetuate it because Gladney likes being associated with a historical figure so much larger than death. He states, “Hitler gave me something to grow into and develop toward” (17). By hiding behind one as ‘large’ as Hitler, Gladney is able to temporarily shake off the feeling of the inevitability of his own death. DeLillo himself states in an interview that, “The damage caused by Hitler was so enormous that Gladney feels he can disappear inside it and that his own puny dread will be overwhelmed by the vastness, the monstrosity of Hitler himself” (Matters of Fact and Fiction). This suggests that Gladney believes that by being somehow associated with this infamous figure, he will in turn lose himself in the notoriety that is Hitler.

However, it is clear that his position is not a long term solution to Gladney’s underlying fear of death. He constantly worries about the fragility of his position, stating, “I had long tried to conceal the fact I did not know German…I was living…on the edge of a landscape of vast shame” (DeLillo 31). Gladney knows that his place in academia is perched precariously; it was gained only from the advantage of being first and not from any special skill or set of experiences. Therefore, it is possible to see how Gladney’s fears for his reputation rather ironically mirror his fears of death. Consider the frailty of his situation: by striving to hide in the shadow of such an infamous figure, Gladney only increases his own anxiety and dread over someone discovering him as a false authority. This parallel illustrates how Gladney’s fear of death transforms his position of authority and makes his appearance and appeal more important than the actual position of knowledge, brought about by post modern culture’s reverence of representations, rather than the actual subject.

After realizing that his job as a professor does not provide him with sufficient cover from the fear of death, Gladney turns to his family as a means of protecting himself, and although he is successful for a short while, his family connections are ultimately not enough to adequately provide a complete haven from his ever-present anxiety. However, Gladney draws comfort from gleaning the domesticity that his family represents for as long as he can. For example, in his search, he (somewhat ridiculously) marries four different women, finally settling down with the reliable, down-to-earth Babette, stating “Babette, whatever she is doing, makes me feel sweetly rewarded…I watch her all the time doing things in measured sequence, skillfully, with seeming ease, unlike my former wives, who had a tendency to feel estranged from the objective world” (6). Gladney seems to be just as in love with Babette’s normalcy and reliability as he is with her as a person, hoping to use Babette’s earthy stability to stave off any uneasy feelings he has about his own existence. In this way, it is possible to see the way the concept of marriage is slightly skewed in the novel’s postmodern setting; matrimony, and the belief in the comfortable reality that matrimony represents, functions not only as a way to stabilize Gladney’s life, but also provides a cover for him to hide behind.

Although Gladney may think he is sheltering himself from the reality of his own eventual death, he is in fact ultimately making the situation worse. Babette, the reader finds out, also has a terrible fear of dying, which serves to negate the stability she provides for Gladney. The realization that Babette, too, suffers from the same anxiety as he, shatters Gladney’s illusions about the comforts of marriage. He tells her before learning the truth about her condition, “I’ve never seen you like this. This is the whole point of Babette. She’s a joyous person. She doesn’t succumb to gloom or self-pity” (191). This assertion highlights the fact that Gladney at first is unable to even accept that Babette might have hidden depths to her. It is as if, after learning of his wife’s anxieties, Gladney realizes that both the fear of death and, in turn, death itself is unavoidable. This is difficult for him to come to terms with, as it negates his former attempts at trying to ignore his fear and taking comfort from his wife’s apparent pragmatism. Tom LeClair, a literary scholar, illustrates the destructiveness of this habit: “attempting to shelter and be sheltered from awareness in their alliance, the Gladneys bring closer to actuality what they fear most” (LeClair 396). This ineffectiveness brings to light a universal truth: that with higher consciousness comes self-awareness, and in turn, the knowledge of the ending of the self is inescapable. By using marriage as a cover to hide behind, the Gladneys are only postponing the inevitable, the realization that their marriage and the comforting normality that it represents will ultimately fail to protect them from the death they so fear. In a culture where representations of life are almost more tangible than life itself, it is impossible to know where to turn to find meaningful answers.

However, even after the two learn the truth about one another, Jack Gladney and Babette continuously try to plunge themselves in domesticity and human connection to assuage their fear of death. They essentially use their children as a shield against the reality they are trying to avoid; their infant child Wilder, who does not speak, serves as a comfort for both of them. Babette even states in the novel how there are “two things I want most in the world. Jack not to die first. And Wilder to stay the way he is forever” (DeLillo 236). By having Wilder always be innocent and unaware of the suppression of the fear of death, the Gladneys feel that they themselves are protected from the onslaught of death itself as well. This is illustrated by Gladney’s reaction to Wilder when, one afternoon, he begins wailing inconsolably, “This was an ancient dirge all the more wailing inconsolably, “This was an ancient dirge all the more
disappeared inside this wailing noise and if I could join him in his lost and suspended place we might together perform some reckless wonder of intelligibility" (74). With this sentence, it becomes clear that Gladney wants to lose himself in Wilder's crying because it would almost become a type of spiritual connection, and by trying to connect with other humans he would be trying to evade the fear of death. In this way, even though the child's cry is wordless, it is still fraught with meaning for Gladney; it is ultimately an example of the way Wilder is able to help Gladney feel better about his own reality.

After Wilder stops crying, the family treats the small boy with the utmost careful respect. Scholar Cornel Bonca states about Wilder's crying episode that, “Wilder has come back… And the religious language Gladney employs evokes his exalted feeling that sharing his death-terror with his son is a primordial human moment” (The Natural of the Species). It is this connection with Wilder that makes Gladney feel a bit better about his own existence. That Wilder was able to express himself so thoroughly through his crying, and that Gladney was able to share in that experience, is comforting. Unfortunately, once Wilder has finished wailing, Gladney has to come back to his own individual reality. Thus both he and Babette desire for Wilder to stay the way he is forever: unabashedly curious about the world, and unashamed to sincerely explore his own emotions.

Gladney holds this same view for his older children, as illustrated by the attention he pays to their interaction with the world around them, and he is continually amazed by the way they live their lives in a media-saturated culture. Although this fact is disputed by essayist Tom LeClair, who states that, “when the children's knowledge and questions penetrate their parents closed environment, the kids become a threat…the Gladney children are also the primary channel by which the other danger- the electronic media- enter the parent's safe domesticity” (LeClair 396), there is almost no textual evidence to support that Gladney and Babette are afraid of their children. On the contrary, when Gladney hears his young daughter, the fearful Steffi, murmur the phrase “Toyota Celica” in her sleep the night after an Airborne Toxic Event forces the family from their home he states, “She was only repeating some TV voice…universally pronounceable. Part of every child's brain noise…., the utterance struck me with the impact of a moment of splendid transcendence. I depend on my children for that” (DeLillo 155). Instead of being filled with fear that his children are so immersed in media culture that they are muttering brand names in their sleep, he is hit with the realization that this, the repetition of universal advertised names, is a way of connecting to other human beings in the world. Cornel Bonca states, “this whirling bit of language [is] so pervasive worldwide that it can serve as common coin in Sri Lanka or Schenectady, Rio de Janeiro or Reykjavik - let it soothe your fears…” (Bonca, The Natural of the Species). Gladney realizes that globalization and corporate takeover, the way of life in which the Gladney children are growing up, create new ways to channel humanity, and Steffi's murmur is one example of this: she is simply reciting global names and brands that connect everyone. Gladney hears this and, rather comically, takes almost religious comfort for a few moments in the product name and in his daughter's own immersion in this corporate-run culture.

In the long term, however, the reader can also see how impossible it is to sustain any type of reassurance from this trust in corporate names. Gladney is again reminded of his own mortality after being told he was exposed to the toxins present in the Airborne Toxic Event, and struggles to comes to terms with this; the momentary comfort that corporate culture induced is no longer adequate. He talks about the panic he experiences, saying “We have these deep terrible lingering fears…the feelings are deep and real” (DeLillo 198). Although Gladney is momentarily lulled into feeling reassured by advertisements and brand names, this trust in these advertisements’ normality and what they represent is not a long term solution to his anxiety. The novel, therefore, asserts how Gladney's use of his children and trust in corporate culture are ineffective safeguards against his fear of mortality.

In all, it is striking to note how much time Gladney spends in the novel explaining the reality he has constructed for himself. He describes the scholarly persona he crafted, constantly worrying about the fragility of his façade, while simultaneously taking steps to prevent others from seeing through the slightly ridiculous image he built for himself. He surrounds himself with his family, immersed in their domesticity, watching his children interact with each other and society. He takes comfort in them and uses them to forget his own mortality. However, this is rather thin cover, and in this way, it is possible to discern an overriding theme prevalent in the work: that is, the very nature of family and work is transformed for Gladney living in postmodern society. He has to craft his own reality in order to protect himself from his fear of death and although they are temporary solutions, these safeguards have the tendency to disintegrate in the long-term.

References


I have on occasion run across the equation $e^{\pi i} + 1 = 0$ in books, articles and in conversation with other mathematicians. In each of these encounters the person alluded to a fascination with this equation which links the five most important constants in the whole of analysis:

- $0$ = The additive identity
- $1$ = The multiplicative identity
- $\pi$ = The circular constant
- $e$ = The base of the natural logarithms
- $i$ = The imaginary unit

Being a novice mathematician, I wondered how all these fundamental constants could end up in one equation and what it meant. Along with this thought came the realization that there was some fun investigating to be done. In this paper I will trace the growth of trigonometric ratios and sequences of exponential growth that lead to the equation: $e^{\pi i} + 1 = 0$. My objective is to appreciate and understand the math that lead up to this equation and help the reader understand how it came to be over two thousand years.

There are basically three “tributaries” of development that lead to this equation. They are, not necessarily in this order, the development of trigonometric ratios and their extension to periodic functions, the development of the theory of infinite series, and the development and understanding of exponential growth and logarithms. These areas don’t always develop independently of each other or in consecutive order as listed, so I will let the natural evolution of the equation dictate the flow of the paper.

Initially I will decompose the equation to show how I determined its historical roots. In other words I will start with $e^{\pi i} + 1 = 0$, and work backwards to see how it untangles mathematically. I will follow that with the historical story of what I consider the important mathematical contributions.

**Decomposition**

To understand how this equation came to be, I naturally began to decompose the equation to see what I could get. At each step of the way I researched the transformed equation and found that many famous mathematicians in history had played around with this equation or the mathematics associated with it. To begin our summary of the mathematical transformations, let’s observe what
happens when we work backwards from the final equation: $e^\pi = -1$. Rearranging terms we get: $e^{\pi i} = -1$. Representing -1 as a complex number $-1+0i$, and further substituting $\cos \pi = -1$ and $\sin \pi = 0$, we get $-1 = \cos \pi + i \sin \pi$. This leads to: $e^{\pi i} = (\cos \pi + i \sin \pi)$ an odd equality until you look at the power expansions of each:

$$
\begin{align*}
\sin x &= x - \frac{x^3}{3!} + \frac{x^5}{5!} + \cdots \\
\cos x &= 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \cdots \\
e^{x} &= 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \cdots
\end{align*}
$$

The sum of $\sin x$ and $\cos x$ almost equal $e^x$. This is too coincidental to ignore.

Introducing complex variables into the mix yields the following where $ix$ is imaginary:

$$
\begin{align*}
e^{ix} &= 1 + ix + \frac{(ix)^2}{2!} + \frac{(ix)^3}{3!} + \frac{(ix)^4}{4!} + \frac{(ix)^5}{5!} + \frac{(ix)^6}{6!} + \cdots \\
e^{ix} &= 1 + ix + \frac{x^2}{2!} - \frac{ix^3}{3!} + \frac{x^4}{4!} + \frac{ix^5}{5!} - \frac{x^6}{6!} + \cdots
\end{align*}
$$

This leads to Euler's formula

$$
e^{ix} = \cos x + i \sin x$$

which simplifies to $e^{\pi i} = \cos \pi = i \sin \pi$. An interesting corollary of the above proof occurs when you let $x=\pi$:

$$
e^{\pi i} = \cos \pi + i \sin \pi = -1 + i \cdot 0 = -1.
$$

This can be rewritten as our famous identity:FORM 1!

I will now pick up the threads of historical development of the three tributaries that lead to our equation: $e^{\pi i} = -1$: trigonometric ratios, infinite series and exponents.

### Trigonometric Functions

The development of the sine and cosine trigonometric functions, have a long and detailed history. I will focus primarily on how and why the sine and cosine ratios came to be and how they transitioned into their well known representations as functions so that I can lead into the analytic forms of both functions.

The oldest known trigonometric artifact from antiquity is the Mesopotamian Plimpton 322 tablet (c. 1900 - 1600 BC) in the G. A. Plimpton Collection at Columbia University. Its actual interpretation is disputed, but it appears to contain the oldest known trigonometric table.

Another one of the oldest recorded references involving trigonometry was the Rhind Papyrus, transcribed by the Egyptian scribe Ahmes in 1659 B.C and discovered by Henry Rhind in a bazaar in Cairo in the late 19th century. The Rhind Papyrus was an important mathematical source used in ancient Egypt, and is a compilation of different mathematical techniques. Problems 56 through 60 specifically deal with the building of the pyramids and use practical trigonometry relating the sides of a right triangle to find the seked of the pyramid.

The seked is the angle of inclination of the face of a right pyramid to the horizontal base, in other words the inverse cosine or angle whose cosine is the ratio of the length of the base to the length of the face of the pyramid. It is interesting to note that these problems don't explicitly refer to angles at all.

Here is a sample problem from the Rhind Papyrus dealing with trigonometry. It is problem 59 and is a translation of the problem with some of the original words.

A mir [pyramid] has 12 as its ukha-thebet [side] and its per-em-us [height] is 8.
Perform the operation on 8 which gives 6; [the latter value] being 1/2 of the ukha-thebet [side]. [The result of performing this operation is]:

1) 1 8
2) 1/2 4
3) 1/4 2

Take 1/2 + 1/4 of 7 [palms]; [this latter value] being a cubit.
[The result of performing this operation is]:

1) 1 7
2) 1/2 3 + 1/2
3) 1/4 1 + 1/2 + 1/4

The result is 5 palms, [1 finger]. Behold this is the seked of the mir [pyramid]. (Herz-Fischler 34)

This problem is an example of how to find the angle of inclination, or seked, of the pyramid face. The Egyptians used a common form of halving on the value of the height (8) to get six, half of the pyramid face (12). The reduction factors used
on the height, in this case 1/2 and 1/4, are then applied to the standard measurement of a cubit to get the seked in terms of palms.

Although all of problems 56 through 60 deal with solving for the seked of the pyramid, it is not conclusively known whether these techniques were ever used to actually aid in building the pyramids in Egypt.

There are many other examples in recorded history of the application and study of trigonometric ratios. Babylonian astronomers in Mesopotamia from 1830 to 1531 B.C. used a device called a guomon for telling the time or season from the length of a shadow cast by a vertical rod. It was essentially a device for computing the cotangent function (Maor 20). The ancient Egyptians built decorated obelisks of stone to keep time. They were located on a horizontal surface that was marked to aid in telling time. The shadow cast by the obelisk was like the hour hand on a clock and marked the time, seasons and equinoxes. The actual method used by the Egyptians is still disputed.

Moving on to the Greeks; the mathematician Hipparchus of Nicaea (ca. 190-120 B.C.) was considered the greatest astronomer of antiquity. He computed a table of trigonometric ratios for plane and sphere, using a triangle inscribed in a circle so that each side is a chord and computing various parts of the triangle as functions of the central angle. Unfortunately although all of Hipparchus’ work has been lost, much of his work has been documented in the Almagest by Ptolemy. Claudius Ptolemaeus, commonly known as Ptolemy (ca. 85-ca.165 A.D.), lived in Alexandria and wrote the Almagest around 150 A.D. It is perhaps the most important summary of ancient Greek mathematical astronomy based on the earth as the stationary center of the universe and was used as an Islamic and European astronomy reference until the early 17th century. It consists of thirteen sections, or “books”. Chapters ten and eleven of book one address the lengths of chords in a circle as a function of the central angle. Ptolemy goes on to use this information to solve any planar triangle in a manner similar to Hipparchus (Maor 25).

The Hindu Surya Siddhanta (ca. 400 A.D.) is a treatise of Indian astronomy and continues the half-chord work of Ptolemy. It uses sine, cosine and inverse sine for the first time and details how to calculate and determine planetary displacements in their elliptical orbits. Below is verse thirty-nine from section 3 of the Surya Siddhanta. It is an example of the type of information this book details:

39. By the corrected epicycle multiply the bhujayya [base-sine] and kotijya [perpendicular-sine] respectively, and divide by the number of degrees in a circle: then, the arc corresponding to the result from the bhujayapahala [base-sine] is the equation of the manda phalli [apsis], in minutes, etc.

This problem describes the final process by which the equation of the apsis is ascertained (Burgess 206). The apsis runs along the major axis of the elliptical orbit and intersects the orbit at the points of greatest and least distance from the planets center of attraction.

Around 510 A.D. the Indian mathematician Aryabhata wrote the astronomical treatise the Aryabhatiya. The text is written in Sanskrit and was highly influential as is evidenced by the many commentaries written about it by other influential mathematicians during Aryabhata’s lifetime and subsequently. In it we find the first mention of the sine, or jiva, as a function of an angle. One of the most notable stanzas in the work is the concluding stanza of the Dasagitika:


This stanza is actually the equivalent of our modern sine table. The numbers stand for the differences between half-chord lengths for a specific angle and circle (Gongol). This illustrates the dependence of calculating the sine as a function of the given angle. The cosine function, which is also mentioned, came about because of the need to compute the sine of the complementary angle, and thus was called the co-sine or kotijya (Maor 35).

For a thousand years use of the sine, cosine and tangent served applicable purposes as ratios of side of triangular representations. Then in the 18th century Abraham Gotthelf Kastner (1719 - 1800, Germany) changed all that. He was the first to define trigonometric functions as pure numbers, rather than ratios of sides in a triangle. He wrote: “If x denotes the angle expressed in degrees, then the expressions sinx; cosx; tanx etc. are numbers, which correspond to every angle” (Maor 53). This enabled mathematicians to consider the sine, cosine and all other trigonometric relationships as functions where the independent variable could be any real number rather than
an angle. The next section will show how the trigonometric functions became analytic, or represented by an infinite series. The analytic representation of the trigonometric functions helped to bring about the unification of trigonometry and exponentiation into our equation $e^{i\theta} + 1 = 0$.

**Infinite Series**

How do the sine and the cosine functions become analytic? In other words, how were they written as infinite series? Here we turn to the Swiss mathematician Leonard Euler (1707 -1783) for much of the discoveries relating to $e^{i\theta} + 1 = 0$. It is impossible to over emphasize Euler’s contributions to the discovery of this equation, which is also known as Euler’s Identity. In my opinion, Euler was one of the most adventurous mathematicians in history. His intuitive and creative leaps uncovered a wealth of mathematical connections. Building on a theorem of Abraham DeMoivre and using a liberal dose of imaginary numbers, Euler derived the famous sine and cosine series expansions.

To begin, though, it is necessary to recognize the important contributions of Abraham DeMoivre (1667 - 1754). DeMoivre was born in France and moved to England when he was a teenager. He made many contributions to probability theory and analytic geometry. In 1722 he restated his famous DeMoivre’s Theorem as follows:

$$(\cos \theta + i \sin \theta)^n = \cos (n\theta) + i \sin (n\theta)$$

This formula is a cornerstone of modern algebra and was used by Euler as a justification in his proof on finding roots of any number. More importantly, Euler used DeMoivre’s theorem in his Introductio to derive the following trigonometric expansions:

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!} \ldots$$
$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \frac{x^8}{8!} \ldots$$

Given the importance of this expansion to the evolution of $e^{i\theta} + 1 = 0$, I have included Euler’s proof of the sine and cosine expansions in Appendix A.

**Exponential Growth**

To uncover the birth of the natural base $e$, and the discovery of its analytic expansion, we need to trace the history of logarithms. A number of famous mathematicians played a part in this exposition, and we shouldn’t be surprised to find Leonard Euler once again making inventive contributions.

First we will start with John Napier, a Scottish mathematician (1550 - 1617) who invented logarithms to be used as tools to simplify multiplication and division calculations into mere addition and subtraction. It seems that he worked primarily in isolation. He wrote *Mirifici Logarithmorum Canonis Descriptio* (A Description of the Wonderful Canon of Logarithms) in 1614. Although he did not consider it his most important work, it contained the first set of logarithmic tables, ninety pages of natural logarithms in all. In the appendix of that work Napier alludes to, but does not name, the constant $e$, also known as the natural base.

The next mathematician to tackle work associated with the discovery of the natural base was Jakob Bernoulli. Bernoulli was a Swiss mathematician who lived from 1654 to 1705 and was part of the famous and talented Bernoulli family, many of whom were mathematicians, scientists, architects and writers (Herman Hesse is a descendent of the Bernoulli family). For much of Bernoulli’s career he was a Professor of mathematics at University of Basel, Switzerland and made numerous contributions to mathematics. He developed the Bernoulli equation in 1695, a type of separable differential equation. He may be best known for his *Ars Conjectandi* which was published posthumously, and contained known work on probability theory and enumeration as well as applications of probability theory and an introduction to his theorem on the laws of large numbers. While working on a problem involving compound interest, Bernoulli attempted to determine what evaluated to. He determined that it was equal to $e$, although he did not call the result such.

Enter Euler, once again. In his work to obtain an infinite series expansion for exponential and logarithmic functions, Euler used rigorous but somewhat elementary mathematics, meaning no differentiation or integration. The mathematics we are interested in occurs in chapter seven of his *Introductio*. In that chapter, Euler begins by finding the series expansion for the exponential function $y=a^x$ where $a>1$. To begin he lets $a^x = 1 + \psi$ and notes that both $\omega$ and $\psi$ are infinitely small. He then goes on to choose a constant $k$ such that $\psi = k\omega$. He knew from experimentally substituting values into $a^x = 1 + k\omega$ that $k$ was dependent upon values of the base $a$. Ultimately Euler was looking for the expansion of $a^x$ and so raised both sides of the equation $a^x = 1 + k\omega$ to the $j$ power yielding $(a^x)^j = (1 + k\omega)^j$. Euler then boldly let $j = \frac{X}{\omega}$, noting that $j$ is infinitely large.
because is infinitely small. This will be a crucial distinction as we will see. By employing the binomial expansion for \((1+k\omega)^j\) and making use of the idea that \(j\) is infinitely large Euler wrote the infinite series expansion:

\[
a^j = 1 + kx + \frac{(kx)^2}{2!} + \frac{(kx)^3}{3!} + \frac{(kx)^4}{4!} + \cdots \quad \text{Equation 1}
\]

At this point he chose to exercise the special case of \(X=1\) yielding:

\[
a = 1 + k + \frac{k^2}{2!} + \frac{k^3}{3!} + \frac{k^4}{4!} + \cdots
\]

Typical of Euler’s insight, he wondered what would happen if he also let \(k=1\). The equation becomes

\[
a = 1 + 1 + \frac{1}{2!} + \frac{1}{3!} + \frac{1}{4!} + \cdots
\]

Euler then computed the approximation of this infinite series and found that! He designated this, “for the sake of brevity”, by the letter \(e\). Further, by letting \(a=e\) and \(k=1\) in equation 1, he arrived at the expansion we are most interested in:

\[
e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \cdots
\]

The Final Unification

Now it’s time to bring all the mathematical tributaries together into one equation. We followed the developments of trigonometric development to the point of analytic representation of the sine and cosine functions. We also saw how the natural base, \(e\) obtained an analytic representation as an infinite series. At this point it is obvious to ask “who discovered the final unification?” Who realized that \(e^\pi +1=0\)? I’m sure you can take a pretty good guess at who it was.

Of course it was Euler! Leonard Euler was already hot on the trail to this discovery when he determined that.

\[
e^\pi = 1 + \pi + \frac{\pi^2}{2!} + \frac{\pi^3}{3!} + \frac{\pi^4}{4!} + \cdots
\]

Ever the mathematically curious, Euler began to wonder what would happen if he employed imaginary numbers in this equation. Specifically, what would \(e^i\) evaluate to if he let it become complex by setting \(x=xi\)? We have the following theorem:

**Theorem:** For any real \(x\), \(e^{xi} = \cos x + i \sin x\)

Proof: Replacing \(x\) by \(xi\) in the expansion of \(e^x\), we obtain the following equations:

\[
e^{xi} = 1 + xi + \frac{(xi)^2}{2!} + \frac{(xi)^3}{3!} + \frac{(xi)^4}{4!} + \cdots
\]

\[
e^{xi} = \left(1 - \frac{x^2}{2!} + \frac{x^4}{4!} + \cdots\right) + i\left(x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots\right)
\]

\[
e^{xi} = \cos x + i \sin x
\]

In the final corollary to this proof Euler replaces \(x\) by \(\pi\) to get the following

\[
e^{\pi i} = \cos \pi + i \sin \pi
\]

\[
e^{\pi i} = -1 + i(0)
\]

\[
e^{\pi i} = -1
\]

\[
e^{\pi i} + 1 = 0
\]

Being an exploration addict, mathematics is my perfect storm. This paper on \(e^{\pi i} +1=0\) demonstrates how seemingly disconnected areas of mathematics, can become connected with some bold intuitive leaps and fresh outlooks on old topics. Being a novice is no liability because sometimes imagination is more important than knowledge!

Appendix A

**Euler’s Proof of the Sine and Cosine Expansions:**

**Theorem:**

\[
\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \cdots
\]

\[
\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots
\]

**Proof:** For any \(n \geq 1\) Euler knew that

\[
(cos \theta + sin \theta)^n = cos(n\theta) + i sin(n\theta)
\]

and

\[
(cos \theta - sin \theta)^n = cos(n\theta) - i sin(n\theta)
\]
Adding these two identities together and dividing by 2 gives
\[
\cos n\theta + i\sin n\theta - i\sin n\theta + \cos n\theta = (\cos \theta + i\sin \theta)^n + (\cos \theta - i\sin \theta)^n
\]
\[
2\cos n\theta = (\cos \theta + i\sin \theta)^n + (\cos \theta - i\sin \theta)^n
\]
\[
\cos n\theta = \frac{(\cos \theta + i\sin \theta)^n + (\cos \theta - i\sin \theta)^n}{2}
\]
Expanding the right hand side using the binomial expansion Euler got
\[
\cos n\theta = \left[ \cos^n \theta - \frac{n(n-1)\cos^{n-2}\theta \sin^2 \theta}{2!} \right] + \frac{n(n-1)(n-2)(n-3)\cos^{n-4}\theta \sin^4 \theta}{4!} + \cdots
\]
Equation 2

Next Euler “went infinite” (Dunham 93). Letting \( x = n\theta \), where \( n \) is infinitely large and thus \( \theta \) is infinitely small he got \( \cos \theta = 1 \) and \( \sin \theta = \frac{x}{n} \).

Which can be written as: \( \lim_{n \to \infty} \cos \theta = 1 \) and \( \lim_{\theta \to 0} \frac{\sin \theta}{\theta} = 1 \).

Because \( n \) is infinitely large Euler recognized that there was no difference between \( n-1, n-2, n-3 \) and so on, therefore he replaced all them all by \( n \). He also replaced \( \cos \theta \) with 1 and \( \sin \theta \) with \( \frac{x}{n} \) in equation 2 obtaining
\[
\cos x = 1^n - \frac{n \cdot n \cdot (1)^{n-2} \left(\frac{x}{n}\right)^2}{2!} + \frac{n \cdot n \cdot n \cdot n \cdot (1)^{n-4} \left(\frac{x}{n}\right)^4}{4!} - \cdots
\]
\[
\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \cdots
\]

Similarly Euler started with:
\[
\sin n\theta = \frac{(\cos \theta + i\sin \theta)^n - (\cos \theta - i\sin \theta)^n}{2i}
\]
Using a similar derivation he ultimately obtained the sine expansion:
\[
\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots \quad \text{Q.E.D.}
\]
Plato’s Theory of Forms: Analogy and Metaphor in Plato’s Republic

ANTHONY JANNOTTA

It would be impossible to understand Plato’s writings on the nature of justice, beauty, or the good without first understanding Plato’s theory of Forms. Plato gives us a variety of different arguments in favor of his theory; most, if not all, of these arguments are analogical. I will explicate two such arguments, the sun analogy and the argument for the Forms found in book X, evaluating each as they are discussed. The evaluation will be geared toward cogency and consistency. First, though, I briefly explain Plato’s theory of Forms in general before examining these arguments. Ultimately, I will conclude that they illustrate both the relationship between the Forms and their instantiations, and among the Forms themselves, namely, the relationship between the good and the other Forms, but the arguments do not prove Plato’s ontology. From examining only these two arguments, it is clear how the Forms would function if they did exist, but the arguments themselves do not establish this existence, and, as a consequence, the arguments have limited persuasive power.

The Theory of Forms in General:
Before we address the Forms directly, let’s first layout Plato’s metaphysical and epistemic framework from the bottom up. Plato makes a distinction between the sensible world and the supersensible world; he calls the former the “visible” and the latter the “intelligible.” The visible is further divided into shadows or images and their corresponding objects; for example, the shadow, reflection, or painting of a tree and the tree itself. He divides the intelligible into mathematical objects and the Forms; for example, conceptual ideas of circles are located in the former, and the ideal, universal circle is located in the latter.

There is a faculty of the soul or species of cognition corresponding to each of these. Plato links images with imagination and perception (eikasia); objects with belief (pistis), mathematics and logic with thought and hypothesizing (dianoia); and Forms with understanding and dialectical reasoning (noesis). It is important to note that the above distinctions, as intimated before, are both metaphysical and epistemic: the visible corresponds to opinion and the intelligible corresponds to knowledge. The degree of reality also increases as we move from images to Forms. Said differently, the Forms are what is true and real, therefore the Form of tree has more reality than an actual tree which, again, has more reality than its reflection.
The Forms, then, are universal, eternal, and unchanging. They are perhaps best understood as concepts or essences. Take, for example, the concept dog. Plato would say that each particular dog that we encounter in the visible world participates in the Form of dog; there are many particular dogs, but there is only one Form of dog. The fact that we employ the word “dog” implies that there is something common to all dogs, that is, some kind of dog-essence. Even though particular dogs are born, live, and die, the concept dog remains eternal and unchanging. For Plato, we can only have beliefs, and not knowledge proper, of dogs in the sensible realm. In order to get beyond beliefs of particular dogs we would need to employ dialectical reasoning to acquire real knowledge; and knowledge, as we will see, is reserved for the Forms only. So, to have knowledge of dogs would be to have knowledge of the Form of dog. Let’s now look at several arguments or metaphors that Plato provides to help us understand the Forms.

**The Sun Analogy:**

Plato’s *Republic* is primarily concerned with the nature of justice and how, by cultivating the virtues, we may foster inner harmony to achieve justice. Toward the end of book six, Glaucron urges Socrates to “discuss the good as [he] discussed justice, moderation, and the rest” (506d). Socrates, however, feels that the good itself “is too big a topic” and, by attempting to discuss it, “[he’ll] disgrace [himself] and look ridiculous by trying” (506e). Rather, Socrates offers to discuss an “offspring” of the good, an offer to which his interlocutors promptly agree. This is the beginning of a series of analogical arguments—the sun, the divided line, and the allegory of the cave—which, while all concerned with the nature of the Forms, tend to emphasize different aspects of Plato’s theory. The sun analogy will be the first of two arguments we’ll discuss.

Socrates begins by reminding Glaucron and Adeimantus that, though “there are many beautiful things and many good things,” there is only one Form of each such that there is the Form of the beautiful and the Form of the good. The many things belong to the visible and are not intelligible while the universal Forms belong to the intelligible and are not visible (507c). Socrates distinguishes sight from all the other bodily senses because it is the only sense that requires “a third thing” apart from the thing that senses (the eye) and the thing sensed (the object), namely light. Socrates asks Glaucron “which of the gods in heaven” is both the “cause and controller” of “our sight to see […] and the visible things to be seen?” (508a).

The answer, of course, is the sun. Socrates goes on to say that although sight and the eye are not the sun itself, sight “is the most sunlike of the senses” by virtue of their relationship to one another (508b). Here, Socrates arrives at the conclusion that the sun is “the offspring of the good” or its “analogue” (508c). The good is essentially the sun of the intelligible realm. The analogy runs thus: “What the good itself is in the intelligible realm, in relation to understanding and intelligible things, the sun is in the visible realm, in relation to sight and visible things” (508c). Glaucron wants more.

Socrates attempts to expand the sun analogy. In the visible realm, when we turn our eyes toward dimly lit objects it is as though sight has left them but, “when [we turn] them on things illuminated by the sun, they see clearly” (508d). In the intelligible realm, when the soul fixes its attention on things “illuminated by truth and what is, it understands, knows, and apparently possesses understanding,” but, when it is absorbed with “what comes to be and passes away,” the soul “opines” and is “bereft of understanding” (508d). What Socrates means by this goes back to the distinctions presented above. Things in the visible realm are not fixed but rather constantly “[coming] to be and [passing] away,” which means we can only have opinion about these things, not understanding or knowledge. When the soul examines those things in the intelligible realm, e.g., mathematical objects and Forms, it can then be said to have some knowledge or understanding precisely because the forms are fixed, eternal, and unchanging.

There is one final point Socrates makes in the sun analogy which we may have already intimated. The form of the good not only gives to the soul the capacity to know, but also gives to objects of knowledge the quality of truth. The good is itself an object of knowledge because it is a Form, but it is also “the cause of knowledge and truth” (508e). The sun allows the eye to see but it is also itself something to be seen. In the same way the sight and the eyes were considered sunlike, knowledge and truth are considered goodlike. The last similarly between the sun and the good is as follows: for things in the physical world, the sun is both the cause of their growth and nourishment and the cause of their very existence; likewise, the good is responsible for objects of knowledge being known and the existence of objects of knowledge, i.e. Forms, in the first place (509c). At this point in the *Republic* the sun analogy ends and the divided line analogy begins, so, before we discuss a second argument, let’s pause and evaluate what has been said.

**Analysis of the Sun Analogy:**

In looking at this first argument, what is immediately striking is the richness of Plato’s metaphor. The analogy makes understanding the good quite accessible but only insofar as its function is concerned. We know that the function of the good in the intelligible realm is like that of the sun in the visible, but we don’t know how it is that the good came to exist and why it has the features that it has. Plato, though, might have an idea as to the origin of the good but chooses not to discuss
it in the Republic; Socrates’ reason is simply that it “is too big a topic,” and to address it would both disgrace him and make him sound ridiculous.

If we accept the good’s ontological status, however, the metaphor works on another level. Just as we cannot look directly at the sun in the visible realm, we cannot be in direct epistemic contact with the good. Our souls are unfortunately embodied and thus our senses inhibit the acquisition of true knowledge. It appears the best we can do is a quick glance in the direction of knowledge as we are unable to dwell on it.

Even if we accept the good’s ontological status, is there any reason to believe that the good has the properties which Plato attributes to it? Plato doesn’t really offer reasons for our believing that the good is the source of all other Forms or that it is what enables us to know them. We could argue that because the seer and the thing seen require a third thing, namely light, that this is somehow a reason that the knower and the thing known require a third thing, namely the good. This, though, in and of itself is not a reason. The analogy helps us understand what Plato means when he talks about the good, but doesn’t help us see that the good necessarily exists. Certainly though other concepts like “dog” or “circle” exist, in some capacity, why should one concept or Form be the source of all the others? The way in which Plato presents this idea seems more like a pronouncement than an argument. As an analogy, however, the sun works quite well; it’s just a matter of accepting the good as given.

There is one other criticism of this first argument. If the good is the source of all Forms and a Form itself, how can they all be eternal and unchanging? If the good is the source of the other Forms, this seems to imply that they aren’t eternal but rather were created by the good and thus had a definite beginning. This could be due to an equivocation with the word “eternal.” If by eternal Plato means “without beginning or end,” then the only Form that fits this definition is the good; the other Forms would have had a beginning, namely, the good. If by eternal Plato means something like “endless,” then perhaps the good can produce the other Forms, but now that they are in existence, they can never go out of existence. Finally, it could be the case that without the good, if the good were somehow taken away, the other forms couldn’t exist. This would allow for all of the Forms to be eternal in the usual sense of the word. In any case, though, there is an ambiguity which Plato leaves unresolved, at least within the sun analogy.

The Forms according to Book X of the Republic:
In book ten of the Republic, Socrates ostensibly condemns artists; more specifically, he condemns imitators in general, and poets in particular, because they tend to distort what is true and real. For reasons I’ll discuss later, this must be taken as more an ironic admonition than an outright denunciation. Nevertheless, Socrates continues his discussion with Glaucon about the education of the ideal city’s guardians. He mentions that they had previously excluded imitative poetry and they were right to do so because of its destructive influence. If, however, the person viewing or hearing the imitative art is educated enough his or her knowledge will act “as a drug to counteract” the negative effects on the psyche (595b). Glaucon wants some clarification as to what exactly Socrates means by imitation. The usual dialectic process begins with Socrates drawing the distinction between a universal Form and the particular things that participate in that Form. The things chosen as examples are beds and tables. Socrates points out that we say the maker of beds and tables is looking “towards the appropriate form” rather than being the maker of the Form itself. Socrates jokingly suggests that Glaucon could easily become a craftsman who could make all the objects and artifacts in the world “if [he] were willing to carry a mirror with [him]” (596e). Glaucon sees where Socrates is going with this argument and anticipates him by saying that he could only make the appearance of things but not “the things themselves as they truly are” (596e). Painters would then fall into the same category because they do not make a particular bed but the appearance of one. A craftsman who makes a particular bed, however, does make something closer to the bed itself, but still does not make the Form of the bed.

Socrates asks Glaucon if he wants to continue the discussion of imitation with reference to the examples already given, and, when Glaucon agrees, Socrates lays out three kinds of beds. The first is the bed a god makes, i.e., the Form; the second is a bed the craftsman makes, i.e., a particular bed; and the third is a bed a painter makes, i.e., an appearance of a bed. The god made just the one Form of the bed because he wished to be the maker of what is real and true and not “just a maker of a bed” (597d). If the god is the maker of the Form, the craftsman the maker of a bed, then what, asks Socrates, does a painter do to a bed? Glaucon responds: “he imitates it” (597e). A more formal definition of an imitator is “one whose product is third from the natural one,” i.e., third from the Form (597e).

Before the conversation turns back to poetry and the tragedians, Socrates makes clear that the painter is concerned only with the appearances. The painter doesn’t paint the Forms, but rather “that which appears as it appears,” thus “it is an imitation of appearances” (598b). Said differently, the painter can only deal with a small part of a physical object which in turn is just an image. For example, the side of a bed would be a small part of the bed and, indeed, not the entire bed itself. The painter, then, works with only the image of the side of the bed.
Analysis of the Book X Argument:

It is probably best to address the ironic element to which we intimated earlier. It must be the case that Plato does not agree completely with his denunciation of imitative arts because the way in which he chooses to express this idea is through an imitative art, namely, the dialogue. It is more likely that he means to address those arts which bypass the most important faculty of the soul, reason, and instead aim at the inferior part of the soul, emotion or desire. In Plato's Ion, too, we find Socrates criticizing poetry. This is largely due to the fact that Plato reserves knowledge for the Forms. A common belief in ancient Greece was that poetry contained, or was a source of, knowledge. As we have seen, this runs contrary to Platonic philosophy. Plato attacks poetry, then, for these two reasons: first, poetry bypasses the best part of the psyche, that is, the rational portion and; second, poetry, according to Plato is not a valid source of knowledge. But let us return to our analysis of book X.

In relation to the theory of Forms, is the argument in book X persuasive? Again, if we are concerned with the ontological status of Forms, then this section of the Republic does not clarify the concerns raised in the middle sections. We can say, as I mentioned before, that the Forms, construed as concepts, have some existence. For instance, there is something that is common to all things we call beds, yet the argument provides no further detail.

There is one additional criticism we must discuss. If physical objects are inferior instantiations of the Forms, then all instantiations inferior in the same way or are some closer to the real thing? We could have, for example, an imitation of dialectic, such as the Republic, but not all of the imitations may be inferior in the same way. We can easily conceive of a good imitation of philosophical dialogue, perhaps the Republic, but we can also conceive of a worse imitation. It seems that there is gradation when it comes to imitations; Is there also gradation when it comes to objects? It seems that there might be gradation for artifacts: we can imagine a better shovel, but what about natural objects like dogs and trees? For Plato, does there exist some dog in the visible realm that is a truer instantiation than some other dog?

Comparing the two Arguments:

When we compare these two arguments there seems to be a discrepancy between them. If it is the case that the good is responsible for the existence of the Forms, does this preclude a god having made the Form of the bed? It could be that Plato is exercising some poetic license when he states that a god made the Form of the bed, but he also doesn't mention how the good came into existence. If the good begot all the other Forms, including the Form of bed, then it is not likely that a god had also made the Form of bed. Plato may have had in mind a certain cosmogony that could explain the production of Forms, but it does not appear in the Republic. As it stands, this issue of the origin of Forms is left unresolved.

Conclusion:

The overall cogency of Plato’s theory of Forms depends largely on how much we are persuaded by analogical arguments. Analogies are useful tools for exposing the relationships between and among ideas, but in and of themselves they have limited persuasive power. We may understand how the good functions (just as the sun in the visible realm), but what we don't understand, or at least what is not evident from the two arguments, is how the good came to be and why it has the properties it has. Plato’s dialogues, though, were written for a popular audience, and this, to be sure, is a good reason for Plato’s reliance on metaphor and analogy. His use of metaphor allows for a popular audience to readily understand, or at least begin understanding, some subtle philosophical point. For, after all, the dialogues are not lectures, they are stories with characters. This is not meant to undermine the philosophical import of Plato’s writing, but rather it is a suggestion of why Plato chose to rely heavily on metaphor and analogy rather than relying strictly on straightforward argument.

Notes

I am using the distinctions Plato makes in the divided line analogy (but devoid of substance) to discuss the Forms in general. It is important to know what the Forms are but also to know where they fit into Plato’s metaphysics.

2 Socrates is often regarded as a conduit for Plato. But to regard the character Socrates as such is potentially to undermine the dialectical nature of nearly all of Plato’s writings. In what follows, however, “Plato” and “Socrates” will be used interchangeably, since we are concerned with Platonic thought.


Works Cited

A Review of Rape Statistics, Theories, and Policy

GARY LOWELL

Rape is defined in the laws of Massachusetts as “[s]exual intercourse or unnatural sexual intercourse by a person with another person who is compelled to submit by force and against his will or by threat of bodily injury” (Mass. Gen. Laws Ann. ch. 277, § 39, 2009). Although traditional definitions of rape have been that only a female can be raped and only a male can rape, “courts have held that the rape statutes in their jurisdictions are gender-neutral and apply equally to perpetrators of either sex” (Lynton, 1995). Still, since male on female rape is more prevalent (see Gonzales, Schofield & Schmitt, 2006), this paper focuses on that form of rape.

Patterns in the commission of rape include that college women are raped at a higher frequency than non-college women (Warkentin & Gidycz, 2007), drug use is common among rapists (Baltieri & Guerra de Andrade, 2008), and fraternity or athletic team members are more likely to engage in rape (Humphry & Kahn, 2000). Many theories explain why people commit rape, such as evolutionary, feminist, self-control, narcissistic reactance, and the American Dream and Crime. The theories on rape can be used to outline many different rape prevention strategies; among these are educating high school students and college men about rape, lobbying for improved rape legislation, and teaching women how to defend themselves.

I: RAPE STATISTICS

Rape Rate

According to the 2008 Uniform Crime Reports, the rate of women raped by men reported to the police was 29.3 per 100,000 inhabitants (UCR, 2008). The rape rate has decreased substantially since 1993 when it was around 40 per 100,000 inhabitants. The rates are much higher in the Midwest (34 per 100,000) than in other parts of the US. In the Northeastern part of the US it is the lowest at 20 per 100,000 inhabitants. The rates in the South (30.4 per 100,000) and West (30.2 per 100,000) are very similar. Rape is also more prevalent in cities (38.2 per 100,000 inhabitants) than in either metropolitan areas (29.3 per 100,000) or nonmetropolitan areas (23.4 per 100,000).

Similar to the UCR, the National Crime Victimization Survey (NCVS) also shows that the rape rate has been going down over time, though this rate represents both male and female rape. In 1973, the rate was 2.5 rapes per 1000 citizens aged twelve and older (NCVS, 2010). In 2008, the last year for
which data are available, the rate was 0.8 per 1000 citizens aged twelve and older. However, the rape rate rose each successive year from 2004 when it was 0.4 per 1000 (NCVS, 2010).

The 2006 National Violence Against Women Survey (NVAWS; Gonzales, Schofield & Schmitt, 2006) found that 17.6% of women are raped during their lifetime, which is significantly greater than male victims of rape (0.3%). The NVAWS shows that more women have been victims of a completed rape (14.8%) than of an attempted rape (2.8%). The NVAWS also suggests “the risk of being raped as a child or adolescent has increased steadily for women over the past half century” (Gonzales, Schofield & Schmitt, 2006, p. 19).

Rape statistics indicate those populations most likely to commit rape, the situations most conducive to rape, and the relationship between drug abuse and rape. For instance, women in college settings are more likely to be raped than women in non-college settings (Warkentin & Gidycz, 2007). “Sexual offenders against women have significant problems with drug use” (Baltieri & Guerra de Andrade, 2008, p. 74; Abbey, Parkhill, Clinton-Sherrord & Zawacki, 2007), and men who are a part of a fraternity have a greater likelihood of committing rape than men who are not in a fraternity (Humphrey & Kahn, 2000).

Of college females, 20% reported having sex forced on them at least once (Warkentin & Gidycz, 2007). Studies show that, “25.2% of college men surveyed reported engaging in some form of sexually aggressive behavior after age 14 years” (Warkentin & Gidycz, 2007, p. 841). These sexual assaults are most likely to occur in social situations where heavy drinking is common (Warkentin & Gidycz, 2007, p. 830). Studies show that a problem with drug use is the most important predictor of sexual aggression (e.g., Baltieri & Guerra de Andrade, 2008). People who abuse drugs, legal and illegal, are more likely to rape women (Baltieri & Guerra de Andrade, 2008).

Participation in fraternities and athletic teams also increases the probability that one will engage in rape (Humphrey & Kahn, 2000). Some studies show “a causal effect of belonging to a fraternity on heavy drinking and its consequences” (DeSimone, 2009, p. 349). Since there is a relationship between fraternity membership and heavy drinking, and between fraternity membership and rape, the inference can be drawn that a heavy amount of drinking may cause a higher frequency of rape.

II: RAPE THEORIES

According to Baumeister, Catanese, and Wallace (2002), a rape theory cannot simply explain why men commit rape; it must also explain why men do not commit rape. They also believe that a rape theory should explain why violence against women takes a sexual form and not a purely violent one (Baumeister et al., 2002). Some theories that may help explain why an individual commits rape are evolutionary theory, feminist theory, self-control theory, narcissistic reactance theory, and American dream theory.

Evolutionary Theory

A biological explanation of rape includes Thornhill and Palmer’s evolutionary theory of rape (Siegert & Ward, 2002). Proponents of this theory claim that those men who were able to force their sexual desires on women were able to reproduce more efficiently, and thus have more offspring with their traits. Thornhill and Palmer are “dismissive of rape theories that emphasize the role of culture and learning in the acquisition of rape-prone traits, arguing that culture is only possible because individuals have evolved capacities that enable them to learn” (Siegert & Ward, 2002, p. 6). They argue that, over time, rape may have been part of evolution because it was a way for men to “circumvent females’ caution when it comes to selecting a mate” (Siegert & Ward, 2002, p. 6). They claim this evolutionary trait survived over time because it guaranteed the continuance of the human species. They purport that “rape can only really be understood in the context of mate selection and the adaptive problems faced by both males and females in the Pleistocene environment. The act of rape effectively blocks or interferes with females’ core reproductive strategies” (Siegert & Ward, 2002 p. 6).

However, Siegert and Ward (2002) also argue that Thornhill and Palmer’s evolutionary theory of rape is not able to adequately explain why men commit rape. They dispute Thornhill and Palmer’s claim that men commit rape for the sole purpose of obtaining sex. Instead, they say that “rapists are an extremely heterogeneous population motivated by quite distinct issues and characterized by different clusters of psychological characteristics,” thus making such a generalized statement impossible (Siegert & Ward, 2002, p. 162).

Feminist Theory

Another theory that could help explain rape is Feminist Theory. Feminist theorists assert that rape is only one symptom of the larger problem of a male dominated society (Cahill, 2001). Feminist theorists see rape as more of a violent act than a sexual act, and purport that rape is inspired by political motivations to dominate and degrade. Feminist theorists also deny that rape has an individualistic nature, but claim that rape is “nothing more or less than a conscious process of intimidation by which all men keep all women in a state of fear” (Cahill, 2001, p. 16, emphasis original). Feminists see rape as serving the function of “ensure[ing] the continued and necessary protection of women by men” (Cahill, 2001, p. 17). Feminists argue that, as a result
of women's fears of being raped, they become dependent on men to protect them (Cahill, 2001).

Feminists also argue that the representation of women, the social construction of femininity, the socialization of men and the social construction of masculinity can explain rape. For example, men who commit rape against women may claim that women are “inherently different from men and that these differences cannot be understood readily by men” (Polaschek & Ward, 2002, p. 10). This “serves to inhibit development of a realistic complex understanding of women's beliefs and desires” (Polaschek & Ward, 2002, p. 10). This also implies that these men may feel sex is a “competitive game between two opponents with incompatible needs” (Polaschek & Ward, 2002, p. 10). Because these men think women are inherently different, it is easier for them to harm women (Polaschek & Ward, 2002).

Theorists who promote the theory of entitlement, which is also linked to gender and feminist theories, postulate that men think they are entitled to having their sexual needs met on demand by women (Polaschek & Ward, 2002). Studies suggest that the likelihood that men will engage in rape depends on their “tendency to attribute to women certain beliefs, capacities, and desires” (Polaschek & Ward, 2002, p. 2), such as the belief that, “women are inherently duplicitous or constantly seek and desire sex with men” (Polaschek & Ward, 2002, p. 2). Some men believe that “women exist in a constant state of sexual reception. They were created to meet the sexual needs of men, and women's most significant needs and desires center around the sexual domain” (Polaschek & Ward, 2002, p. 11). Men with this belief think that women were put on the earth only to please men, and that women want only what men want. As a result, these men tend to perceive a woman's actions as being sexual, even when they are not.

Some men also think that a woman's actions and her sexual needs are often in opposition to each other (Polaschek & Ward, 2002). They think women are “unaware of the unconscious messages their bodies are emitting” (Polaschek & Ward, 2002, p.11). They often conclude that “a woman can enjoy sex even when it is forced upon her” and “rape is generally a misinterpretation of sexual cues” (Polaschek & Ward, 2002, p. 11). This idea leads them to believe that it is acceptable to forcibly rape a woman because, even if she claims she does not want it, she at least subconsciously does.

Often those men who see women as sex objects and as inherently inferior to men are more likely to commit to rape (Polaschek & Ward, 2002). Men who hold these beliefs think that they are “entitled to control women's sexuality, and to determine what a woman really wants” (Polaschek & Ward, 2002, p. 14). Such men also think they “are entitled to shape women's sexual and nonsexual behavior, and to decide what is acceptable or unacceptable” (Polaschek & Ward, 2002, p. 14). Therefore, women should meet male needs on demand, men are entitled to force their desires onto women, and therefore, men are entitled to rape women.

Martin, Vieraitis, and Britto's (2006) study supports the feminist claim that rape is only one symptom of a male dominated society. In their study, areas of greater gender equality tended to have higher rape rates. They state that the “results indicate[d] a backlash effect for the gender equality measures [because] men may perceive as threatening their hold on socioeconomic status” (Martin et al., 2006, p. 334). This seems to support the feminist claim; since some males may perceive greater gender equality as a threat, they may resort to rape to feel that they are still dominant.

**Self Control Theory**

One theory that can lead to a man committing rape against a female is based on the premise that the male sex drive is uncontrollable (Polaschek & Ward, 2002). Men with this belief say that their sexual urges cannot be controlled and they are not responsible for their actions. Proponents of this theory “[propose] both that men's sexual energy is difficult to control and that women have a key role in its loss of control,” since women deny sex to men who have to relieve their sexual drive (Polaschek & Ward, 2002, p. 13).

This theory can be tied to Gottfredson and Hirschi's (1990) low self-control theory. Low self-control theorists posit that, since criminal acts provide immediate gratification, criminals will engage in them because they are not able to defer gratification. In addition, theorists claim that crime is easy, exciting, requires little skill, and may result in pain to others. Since individuals with low self-control will be more impulsive, adventurous, self-centered, and have fewer skills, they will be more likely to engage in crime because of its perceived benefits (Gottfredson & Hirschi, 1990).

Studies show that lifestyle impulsivity may be a predictor of sexual aggression (e.g., Prentky & Knight, 1991). Having poor social and interpersonal skills can also be a predictor of sexual aggression (Prentky & Knight, 1991). Studies also show that rapists tend to have “lower empathy, lower adult attachment…[and] stronger sexual dominance motives” compared to the average citizen (Abbey et al., 2007, p. 1574). Thus, men, who have low self-control and are not able to control their sex drive, may obtain “sex without courtship” (Gottfredson & Hirschi, 1990, p. 89). They are more likely to commit rape.
Narcissistic Reactance Theory

Another theory that can explain rape is the Narcissistic Reactance Theory, which is also tied to Gottfredson and Hirschi’s (1990) low self-control theory (Agnew, Brezina, Wright & Cullen, 2002). In this theory, narcissists are defined as having a “lower proneness to shame and guilt,” having “unrealistically positive self-evaluations,” and being “especially likely to respond to bad evaluations by blaming other sources, including the evaluator and the technique of evaluation” (Baumeister et al., 2002, p. 3). These theorists claim that the “tendency to respond to esteem threats by getting angry and blaming others may contribute to the elevated level of interpersonal difficulties that narcissists report” (Baumeister et al., 2002, p. 4).

The authors also claim that narcissists have “shallow relationships, along with contempt for and devaluation of others” (Baumeister et al., 2002, p. 4). Narcissists are “eager to obtain the admiration of others and are prone to envying the successes of others. They are charming and adept at influencing others to do what they want, yet ironically they are also insensitive to others and indifferent to other people’s feelings and desires” (Baumeister et al., 2002, p. 4). Narcissists tend to be willing to do whatever it takes to achieve the goal that they want from a relationship, including rape (Baumeister et al., 2002). Since they are willing to use any means to achieve their goals, narcissists, arguably, have low self-control and are willing to do whatever it takes to achieve immediate gratification (e.g., rape).

The narcissistic reaction theory of rape is based on the following model: When a man desires sex with a woman, and she refuses, “[h]e is thus presented with a choice between acquiescing to her refusal or using force to obtain sex” (Baumeister et al., 2002, p. 4). For those who are narcissistic and lack self-control,

…an unavailable woman would become increasingly attractive to the man as a potential sex partner...[the man] would try that much harder to reclaim his lost option by having sex with [the woman]...[and the man] may aggress against [the woman], because [the woman] is the person who restricted [the man's] freedom. (Baumeister et al., 2002, p. 5)

According to Narcissistic Reactance Theorists, with narcissism comes an “exaggerated sense of entitlement” which they say could “cause [men] to form higher expectations of receiving sexual favors than other men would have” (Baumeister et al., 2002, p. 6). A narcissistic man would, “take a woman's sexual refusal as a personal affront, regardless of her actual reasons” (Baumeister et al., 2002, p. 6). A narcissistic man is “more likely than others to attribute sexual rejection to personal rather than situational factors” (Baumeister et al., 2002, p. 6).

In Bushman, Bonacci, van Dijk, and Baumeister’s (2003) study, men were shown films depicting rape, and were asked to rate the films in terms of favorability. The findings show that narcissists had a more favorable view of depictions of rape than other men. In fact, “the relatively higher enjoyment of narcissists was most pronounced when the rape scene was preceded by depictions of consensual affectionate activity” (Bushman et al., 2003, p. 1038). This lends support to the narcissistic reactance theory claim that if a narcissistic man desires sex with a woman, reactance could cause him to force sex on the woman.

American Dream and Crime Theory

Messner and Rosenfeld (2007) claim that American goals and values pursuant to the American dream are conducive to crime. They claim that the American value of achievement with low emphasis on how to achieve the goal is criminogenic (Messner & Rosenfeld, 2007). According to Messner and Rosenfeld (2007), since the American Dream emphasizes power with little emphasis on the legitimate means to achieve that power, citizens are not restrained from employing any means necessary to achieve power. In other words, the American dream, since it does not specify legitimate means that can be used to obtain power, in fact encourages citizens to employ illegal means (Messner & Rosenfeld, 2007). For example, some rapists may believe that “the world is inherently a hostile and uncaring place where, by default, others are out to harm, exploit, and degrade and deceive in order to promote their own interests” and obtain power (Polaschek & Ward, 2002, p. 14). They engage in “hostile behavior towards others as a preemptive action to prevent inevitable harm to [themselves]” (Polaschek & Ward, 2002, p. 14).

In the US, one’s power is a measure of one’s worth, and it is valued above all else. Since power is advantageous in American society, individuals may use any means to achieve power. If a man is unable to obtain power through legitimate means or feels powerless, he may seek to obtain that power and feel powerful through rape. One study shows that, “[r]apists [are] more motivated to have sex as a means of achieving power over women” (Abbey et al., 2007, p. 1575).

III: POLICY

To help address rape, several approaches should be taken, including educating high school students on what constitutes rape, educating college students on how to prevent rape, lobbying for improved rape legislation, and educating women on how to defend themselves.

High School Education Campaign

High school students should be educated about rape. This
program should be based on Karen Fay and Frederic Medway’s program, in which they seek participants to:

…the- -understand acquaintance rape and its frequency, rape laws and the relation of rape to violence and coercion…explore feelings about acquaintance rape, and discuss teasing, honesty in dating, decision making, aggression, submission and assertion…Learn about the cultural forces contributing to the frequency and social acceptance of acquaintance rape, such as traditional gender stereotypes, media violence and cultural norms and myths…learn about the role of inconsistent verbal and non-verbal communication…and learn how to communicate wants and desires clearly…and identify rape prevention strategies and learn about local sources of victim support. (Fay & Medway, 2006, p. 226-227)

The program teaches about “assertive behavior…sexual pressure and mixed messages…communication, gender expectations and dating and drinking…rape myths, victim blaming and sexual violence in the media…date rape definition and problem-solving…and what to do if rape occurs” (Fay & Medway, 2006, p. 227). One study shows that this program succeeds in lowering the acceptance of rape myths among participating students compared with students who did not participate in the program (Fay & Medway, 2006).

College Education Campaign
Educating college students on how to prevent rape should also be implemented. This program should be similar to that used by Potter, Moynihan, Stapleton, and Baynard (2009). Since college-aged women are four times more likely to be raped than non-college-aged women, directing an education campaign towards college-aged students would likely reach a large number of both men and women who may be affected by rape.

Potter et al. (2009) hung posters across a college campus to increase awareness of what to do if rape occurs. The posters “model[ed] prosocial intervention behaviors…,” which included intervening in a rape situation and listening to a friend who has been raped (Potter et al., 2009, p. 109). Students who were exposed to the posters “demonstrated significantly greater awareness of effective bystander behaviors than the [students] not exposed to the campaign” (Potter et al., 2009, p. 109). In the poster campaign, students “who reported seeing the posters exhibited greater awareness of the problem…and greater willingness to participate in actions aimed at reducing sexual violence…compared to those students who did not report seeing the poster[s]” (Potter et al., 2009, p. 117-118). Such a poster campaign at colleges could increase the willingness of college students to prevent rape should they see it, and could lead those students to remain active in preventing rape.

New Legislation
Legislation should be implemented that would mandate counseling and support group sessions for rapists once they are released from incarceration. This program should emphasize teaching rapists what they did wrong, what led them to commit rape, and how to help prevent committing rape in the future. This legislation is similar to Delaware’s Alternatives to Violence Program (Miller & Shuford, 2005). The Alternatives to Violence Program emphasizes “Bias Awareness, Manly Awareness, and Anger and Forgiveness” (Miller & Shuford, 2005, p. 1). People who participated in the Alternatives to Violence program had a lower recidivism rate than did non-participants (Miller & Shuford, 2005). Implementing this program nationally could teach offenders the causes of rape to reduce their likelihood of recidivating.

Self-Defense Program
Teaching women to defend themselves when attacked and to avoid risky situations could be another effective program. “Research shows that women who have experienced a completed rape have poorer mental health, such as more depression, anxiety, suicidal ideation, and suicide attempts, than women experiencing attempted rape” (Ullman, 2007, p. 413). Research has shown, “that using more resistance strategies and resisting immediately are related to avoiding completed rape” (Ullman, 2007, p. 413). Although it is useful for women to resist rape in general, “different types of resistance are related to different odds of suffering completed rape and physical injuries” (Ullman, 2007, p. 413). Resistance techniques that increase the chance of a woman avoiding a rape situation include “physical actions women use against their attackers, including biting, scratching, hitting, using a weapon, and martial arts or other physical self-defense techniques” (Ullman, 2007, p. 413).

IV: CONCLUSION
Prentky and Knight (1991) claim that “rape is a multidetermined behavior that will ultimately be explained only by models incorporating a multitude of dimensions” (p. 657). Evolutionary, feminist, self-control, narcissistic reactance, and the American Dream and Crime theories can all be used to help explain why rape occurs. Evolutionary theorists claim that men are born with predispositions towards committing rape. Feminist theorists explain that the culture of male dominance is responsible for rape occurring. Self-control theorists say that rapists are not able to control their sexual desires. Narcissistic reactance theorists argue that men who may not accept a woman’s rejection may force her to have
sex. American Dream and Crime proponents would say that men who feel powerless or seek power are prone to commit rape because American culture uses power as a measure of an individual’s worth. Educating high school students on what constitutes rape, educating college students on how to prevent rape, lobbying for Alternatives to Violence Programs for rapists, and educating women on how to defend themselves may help to reduce rape and the effects of rape.

References


Naturalism and is Opponents

JOSEPH SPENCER

Joseph Spencer is a senior philosophy major from Taunton, MA. He first worked on this research as part of Dr. Catherine Womack’s “Knowledge and Truth” class in Spring of 2009. Joseph will be presenting his research at Pacific University’s 2010 Undergraduate Philosophy conference. He plans on attending graduate school in Fall 2010.

Ever since Descartes began his search for certainty in philosophy, many of the great philosophers have taken up this quest. One solution, proposed by WVO Quine in his 1969 essay, *Naturalized Epistemology*, claims that we must refrain from studying epistemology in philosophy. Quine claims that our study of knowledge must only occur in the field of psychology and that we should refrain from talking about these issues in philosophy. As one can imagine, Quine’s essay was met with much criticism and anger among philosophers. Most notably, Hilary Putnam provides a devastating critique of naturalized epistemology in his essay, *Why Reason Can’t be Naturalized*. In this paper, I present both men’s views, and argue that Putnam’s response, while not perfect, does demolish the bases for Quine’s arguments about knowledge.

Naturalized epistemology has spawned one of the great debates among philosophers for almost half a century. Should we eliminate epistemology as a field of philosophy and, instead, look at it from the view of psychology? This problem stems from an even greater problem, the problem of skepticism, the rational doubt of what we can know and how much we can know it. Only recently has the debate encountered this new version: naturalized epistemology. In this paper, I explain naturalized epistemology and the problems that arise from it.

Throughout the history of epistemology, philosophers have debated about the ways to go about defining what knowledge is. Many, like Descartes, believed that knowledge consisted mainly in some form of justificatory belief. This idea later received the acronym, JTB, justified true belief. It was this tendency to search for justification, which the philosopher, W. V. Quine, spoke out against in his landmark essay, *Epistemology Naturalized*.

Quine decided that we needed to move epistemology away from its more “normative” aspects, and instead center it in the field of psychology. He believed that epistemology, as previously understood, could never lead us to the answer of the question epistemologists asked, “What is knowledge?” So, Quine took the route that he claims Hume suggested, that we link epistemology with a form of psychology, since science is verifiable by nature, while philosophy is not.
Now, as a brief explanation, the “normative” refers to the standard way of looking at epistemology. These normative claims rely on their stability as a basis for knowledge. What Quine proposes is that epistemology needs to be moved away from any accepted foundation. What this will effectively accomplish is to turn epistemology into an ambiguous science.

As one can expect, Quine’s notion of epistemology being naturalized and transformed into just another science, was met with much resistance. Many philosophers, most notably Hilary Putnam, argued that we should not undertake Quine’s challenge, since he abandoned philosophy and the nature of justification. Putnam argued that Quine’s puzzling resistance to Cartesian justification, echoing Hume’s skepticism of knowledge, would lead to a complete elimination of epistemology as it had been understood for centuries.

The debate between supporters of naturalism in epistemology and naturalism’s opponents has raged ever since Quine published his essay. Jaegwon Kim, in his recent essay, What is Naturalized Epistemology?, continues the opposition to Quine’s view. Kim specifically attacks Quine’s assertions about justification. Quine, for Kim, by losing justification, has taken all knowledge out of the field of epistemology, which defeats its original purpose. What follows in the wake of removing justification, for Quine, is a reliance on the connection between evidence and theory. However, Kim claims that evidence and justification are, in fact, one and the same. So, you cannot have one without the other.

Inherently, this debate is about justification and its meaning. If we are to abandon justification because it is difficult to define, then, as Quine has done, we must find a new means of looking at knowledge. However, if, as Putnam and Kim argue, we believe that it may be difficult to define justification, but the search for its true definition has not ended, then we must retain epistemology as a field of philosophy and not allow it to become another field of science.

W. V. Quine set off a firestorm when he published his essay, Epistemology Naturalized. He believed that he had found the solution to all the problems epistemologists had faced for centuries. He argued that epistemology must no longer be concerned with the justification of knowledge, since that had proved too difficult, and must instead become part of psychology.

Quine argued this point for a number of reasons. First, he believed that “epistemology is concerned with the foundations of science” (Quine, 528), so it seemed only natural to Quine that epistemology should be linked with a field of science. Secondly, the appeal of science lies in the fact that it is intelligible, which epistemology had not been, Quine believed, until he linked epistemology with psychology. Another reason is that Quine believed, as Hume had, that if we brought fields of philosophy into fields of science, we would be able to come to know what, in this case, knowledge actually is.

Quine began his explanations of naturalized epistemology by pointing out all the problems with epistemology. By moving systematically through each of the options philosophers have offered to account for an understanding of knowledge, Quine believes that he has disproven them. By focusing on mathematics as an example, Quine points out how many people have trusted that they are on the right path, since math, is intelligible; however, Quine’s conclusion is that even though math has aspects that may be “philosophically fascinating, … it does not do what the epistemologist would like of it; it does not reveal the ground of mathematical knowledge, it does not show how mathematical certainty is possible” (Quine, 529). This shows that he believed that the quest for a firm foundation in math failed as well. It proved that there are limitations to what we can do and how we can use, formal logical proofs in relation to math, and conversely, the world around us.

Quine holds Rudolf Carnap’s work of proving a “rational reconstruction” in the utmost contempt. He does not believe that there is any worth in “this creative reconstruction, this make-believe” (Quine 530), since these concepts do not prove anything relating to knowledge itself. These “creative reconstructions,” according to Quine, will only lead to imperfect translations, which will not bring us any closer to knowledge. For Quine, these imperfect translations would be far worse than placing epistemology under the auspices of psychology.

What Quine claims led him to developing this new relationship for epistemology was the realization that “a statement about the world does not always or usually have a separate fund of empirical consequences that it can call its own” (Quine 533). So, he is suggesting that we no longer look for justification, and that we should only search for explanations for the origin of the event. In laying out his new program, Quine concedes that “philosophers have rightly despaired of translating everything into observational and mathematical terms…But [Quine] think[s] that at this point it may be more useful to say rather that epistemology still goes on, though in a new setting and a clarified status” (Quine 533). He is here claiming that the only way we can use epistemology is to use it as a psychologist would.
Part of Quine’s reasoning for the marriage of epistemology and psychology is that “we can now make use of empirical psychology” (Quine 533). He claims that this is the best alternative, since he is “after an understanding of science as an institution or process in the world” (Quine 534), and with this new program we can make induction clearer than before. So, in effect, Quine has given us a new form of science. This new form is one in which ordinary, normative claims are thrown out and all we are left with is an ambiguous approach to scientific problems.

Towards the end of the essay, however, Quine returns to discuss “observation sentences,” which he claims are sometimes able to assist in epistemology in its original form and the new naturalized form. The importance of these “observation sentences” rests on the fact that they point toward a physical object. It may seem somewhat strange that he raises this point late in his paper, but as we shall see later described by Hilary Putnam, these sentences are just one of the many important features of Quine’s thought.

Many philosophers vociferously disagreed with Quine’s viewpoints about epistemology and, even with his arguments against other philosophical endeavors. So, in the next section, we will examine Hilary Putnam’s arguments against naturalism in epistemology.

With the firestorm raging around W. V. Quine’s Epistemology Naturalized, one of the more articulate philosophers of the anti-naturalism crowd, Hilary Putnam, wrote his critique of Quine entitled, Why Reason Can’t Be Naturalized. In the essay, Putnam took on each of Quine’s arguments, point by point, to make the best case possible against naturalized epistemology. In presenting his arguments, Putnam takes on his opponents in a slightly more indirect manner than Quine did.

Putnam points out that “those who raise the slogan ‘epistemology naturalized’…generally disparage the traditional enterprises of epistemology… [So] in this respect, moreover, they do not differ from philosophers of a less reductionist kind” (Putnam 314). What Putnam is doing is allowing the readers the opportunity to judge for themselves the difference, if any, between the proponents of naturalized epistemology, and those they condemn. By setting these comparisons, Putnam believes that we will come to the truth of whether a naturalized epistemology can work.

The first possible form of a naturalized epistemology Putnam observes is evolutionary epistemology. This, he claims, cannot work in the end, since the “approach assumes, at bottom, a metaphysically ‘realist’ notion of truth: truth as ‘correspondence to the facts’ or something of that kind” (Putnam 314). The notion expressed does not work because, Putnam claims, we do not have the ability to judge the truth of any statements dealing with anything we do not take part in constructing, and if this is not bad enough, trying to come up with an idea of capacities would be even worse, for Putnam.

Putnam next goes after the Reliability Theory of Rationality and cultural relativism. When dispatching of the concept of a reliability theory, Putnam uses the same argument he used against evolutionary epistemology, namely that “it too presupposes a metaphysical notion of truth” (Putnam 316). In discussing cultural relativism, however, Putnam employs a more nuanced method of enquiry. Now, at first glance, it would seem that Putnam, with his view that “Truth claims” are relative to the language in which they are uttered, would be in favor of a culturally relativistic approach to epistemology. He is not favoring this approach since he explains that his conception of truth as relative to language “does not mean that a claim is right whenever those who employ the language in question would accept it as right in its context” (Putnam 316). Putnam argues that there must be a balancing of two points. First, that “talk of what is ‘right’ and ‘wrong’ in any area only makes sense against the background of an inherited tradition” and, second, that “traditions themselves can be criticized” (Putnam 316). Therefore, what he is here claiming is that no matter what kind of moral standards a particular culture may hold, rationality is not determined by those standards; it is beyond human constructions. Cultural relativism is dangerous for Putnam because it does not rely on reason. A cultural imperialism follows directly from cultural relativism, in that it also does not rely on reason, and it relies solely on one’s culture.

After touching upon all these points, Putnam finally directly attacks Quine’s arguments. Putnam claims that he only begins discussing Quine after explaining away all these previous ideas “because Quine’s views are much more subtle and much more elaborate than the disastrously simple views we have just reviewed, and it seemed desirable to get the simpler views out of the way first” (Putnam 320). He decides that it is best to discuss what he sees as the dichotomy of two dominant “strains” in Quine’s thought separately: the positivistic strain and the ‘epistemology naturalized’ strain.

In Quine’s positivistic writings, Putnam points out his attachment to “observation sentences,” those sentences that, for Quine, define what is real in the world. Putnam finds this attachment strange, as “Quine’s ideal systems of the world are finitely axiomatizable theories, and contain standard
mathematics” (Putnam 321). In this system everything could be justified, which, obviously, cannot be done in the real world, but Putnam believes that it cannot be done in an ideal material world, either. Since, for Quine, the structure of reality matters, Putnam posits that Quine’s views are extremely inconsistent, and this is the biggest problem with positivism in general. Now, the reason why this problem arises is that both Quine and Putnam are trying to find a foundation for epistemology. Quine seems to have abandoned the original foundation, whereas Putnam wants to keep it. Putnam then moves on to naturalized epistemology itself.

Putnam observes that in Quine’s essay, he has abandoned the search for justification through observation sentences, and, instead, has decided that epistemology cannot be understood merely as a field of philosophy; it must now become part of psychology, and, thus, a science. The major claim, which Putnam makes, is that “Quine’s position is sheer epistemological eliminationism” (Putnam 322), since Quine removes any forms of justification from epistemology, which, for Putnam, is removing the whole purpose of the field from itself. Now, Putnam admits that Quine has publicly declared that he never meant to “rule out the normative” in his naturalized epistemology; Putnam asserts that the reason this claim makes sense is because Quine viewed the normative as “the search for methods that yield verdicts that one oneself would accept” (Putnam 322). If this is true, then Quine cannot be blamed for ruling out the normative. However, as we will see, this sentiment is either not true or only partially true.

Putnam explains that we cannot rule out the normative because “if one abandons the notions of justification, rational acceptability, warranted assertability, and the like, completely, then ‘true’ goes as well, except as a mere device for ‘semantic assert’” (Putnam 322). What he is warning us is that if we follow Quine’s logic of naturalized epistemology; we can do away with any idea of what can be true. For Putnam, there is more work to be done, and none of it can be done if we do not have a notion of ‘true’, and this is where the danger of naturalism lies.

The problem of normativity was one that both Quine and Putnam dealt with in their essays, and in later works. Putnam even concedes, in Why Reason Can’t Be Naturalized, that Quine believed that he was not eliminating the normative in naturalized epistemology. Despite this acceptance of Quine’s personal belief, Putnam still had grave doubts about where naturalized epistemology would lead us, and of Quine’s, apparently, mistaken belief that he could retain the normative as part of naturalized epistemology. Clearly, even today, the contention remains that Quine did in fact eliminate the normative by naturalizing epistemology.

Naturalized epistemology leads to a loss of the normative since it is based on assumptions that allow for the thinker to shift the foundations he or she is basing his or her ideas upon in epistemology. This occurs since, as Putnam points out, “if one abandons the notions of justification, rational acceptability…, and the like, completely, then ‘true’ goes as well” (Putnam 322). His assertion is true, but it is important to note his emphasis on the word, completely. This danger occurs when we “completely” throw out the normative. Putnam clearly believes that Naturalized Epistemology rules out the normative, but at the same time, he is far more concerned with where the ideas of Naturalized Epistemology will lead others, rather than what Quine lays out exactly in his essay. Quine’s claim that he was not eliminating the normative is at best, misguided, and at worst, dishonest. There is no way I can see for Quine to defend himself from the claims that he is eliminating the normative.

An idea that Quine can eliminate the normative, yet still keep the importance and significance of knowledge for science, is something that has been debated ever since he first penned his essay. For most anti-naturalists, it is clear that there are grave problems once you have eliminated the normative in epistemology. First, if knowledge can be something that is merely relatively true, it cannot lead to an intelligible knowledge of the fact on the part of the observer. Relativity clouds the ability to know what it is that one is observing. Second, according to Putnam, all that happens to our understanding of “true” in this new sense, is that we look at it as “a mere mechanism for switching from one level of language to another” (Putnam 322). What he means is that all we are doing is changing the language of the debate, but not actually answering the question asked.

The question of normativity remains a major debate to this day. With naturalists and anti-naturalists going back and forth over its importance, it is no wonder so many people find the debate to be un-resolvable. Nevertheless, it is only through constant debate that either side can come closer to a sense of what is the truth about epistemology.

I do have a definite opinion of this debate, and it should be clear from my overview of the debate and the emphasis I placed on the normative where my allegiance lies. I am a convinced anti-naturalist. I have great reservations about Epistemology Naturalized. Just as it is the greatest problem for Putnam, I find it entirely irresponsible. I believe it has irreparably harmed philosophy by eliminating the normative in epistemology and removing epistemology itself from the field of philosophy. Not only has it harmed philosophy, though, it has also harmed science, since it has removed any notions of understandable foundations for science to rest upon.
Furthermore, I do not see how Quine can link his skepticism to that of Hume. David Hume was not only skeptical of what philosophy could tell us, as Quine points out. He was also skeptical of what scientific knowledge was. Linking epistemology to psychology, a field of science, does not appear to settle any of the epistemic problems Hume observed, despite Quine’s protests to the contrary.

I do not entirely agree with Hilary Putnam, either. His ideas betray a lack of belief in a metaphysical reality, which I cannot accept, and he is much too conciliatory towards Quine. Putnam left many lines of thought unexplored in his essay. Nevertheless, his cautious approach is better than no opposition at all to Quine’s idea. I have no doubt that naturalism can only bring about more confusion than knowledge. I only hope that with this ongoing debate, those who oppose naturalism can once again gain greater clarity in their defense of true philosophy.

Works Cited


Campus Rape Phenomenon

KERIANN SPERANZA

Rape is a serious crime affecting all colleges and universities, but it is rarely brought to the attention of the media, administrators, faculty, students, and community. Research shows that between 14% and 27.5% of college women have been sexually assaulted (Humphrey & Kahn, 2000). The 2005 Bureau of Justice Statistics Report on violent victimization of college students indicates that between the years 2000 and 2004, 74% of rapes and sexual assaults were committed by someone known to the victim (Gross, Winslett, Roberts, Gohm, 2006). This report also suggested that campus rape is the most underreported violent crime in the United States.

Rape is one of the most severe of all traumas, causing multiple, long-term negative outcomes. Between 17% and 65% of raped women develop posttraumatic stress disorder (PTSD) (Campbell, Dworkin, Cabral, 2009). In particular, most victims of rape suffer from the “rape trauma syndrome,” a specific form of PTSD, which includes persistent intrusive repetitions of the rape experience (e.g., nightmares and intrusive memories), persistent distress when exposed to rape related events or situations, and persistent symptoms of hyper-vigilance (Campbell et al., 2009). Moreover, more than half of sexual assault victims meet diagnostic criteria for depression, and 40%-49% of survivors become dependent on alcohol (Campbell et al., 2009).

Given the little attention given to campus rape, and the traumatic collateral consequences resulting from an already traumatic event, this paper focuses on male-female rape on college campuses. By first reviewing statistics of rape rates among college fraternities and athletic teams, and discussing the relationship between alcohol consumption and campus rape, I show how Ronald Akers’ (1998) Social learning theory of crime, James Messerschmidt’s (1993) Masculinities theory, and Felson and Cohen’s (1979) Routine activities theory can help explain the causes of this criminal behavior. Finally, I present current legislation surrounding campus crimes, and propose a new policy that prohibits alcohol on campus and targets members of fraternities and athletic teams, which may more effectively prevent and reduce campus rape rates.

STATISTICS

Women aged sixteen to twenty-four experience rape at rates four times higher than the sexual assault rate of all women. Because most college women fall into the age range of sixteen to twenty-four, they are at a higher risk
of experiencing a sexual assault (Humphrey & Kahn, 2000). Moreover, a woman is more likely to be sexually assaulted while in college than before entering college (Krebs, Lindquist, Warner, Fisher, Martin, 2007), and most are assaulted within the first two years of college.

Recent data shows that 26.1% of senior women in college have been victims of either an attempted or completed sexual assault since entering college (Krebs et al., 2007). Another study of college women shows that of those who reported being victims of sexually coercive situations, 84% of the incidents occurred during the first four semesters when they lived on campus (Gross et al., 2006). Seven percent were victims of physically forced sexual assault and 16% were victims of incapacitated sexual assault (Krebs et al., 2007). Victims of incapacitated sexual assault were considerably more likely to have been using alcohol before the assault, and were categorized as drunk during the assault (Krebs et al., 2007).

When attempting to understand the nature of sex offenses on college campuses, research shows that athletes and fraternity members, in comparison to the general male population, demonstrate higher levels of sexual deviance (Jackson, Veneziano, & Riggen, 2004). Fraternity members comprised 25% of the assailants in incapacitated sexual assaults (Krebs et al., 2007).

THEORETICAL EXPLANATIONS

Three theories propose explanations for rape on college campuses: Ronald Akers’ (1998) social learning theory, James Messerschmidt’s (1993) masculinities and crime theory, and Marcus Felson’s and Lawrence Cohen’s (1979) routine activities theory. These three theories describe different explanations and provide a framework for policies of campus rape on the American college campus.

Social Learning Theory

Akers’ Social Learning Theory (1998/2006) is a broader theory that grasps the differential association process and incorporates differential reinforcement and other principles of, “behavioral acquisition, continuation, and cessation” (Akers & Sellers, 2009, p. 88). Akers (1998/2006) includes a variety of concepts regarding differential reinforcement including, “operant” behavior (voluntary actions of the individual), which is conditioned and shaped by rewards and punishments, respondent conditioning (involuntary reflex behavior), environmental and internal stimuli that provides signals for behavior, and schedules of reinforcement (rate and ratio in which rewards and punishments follow behavioral responses). Social learning theory offers a breakdown of crime and deviance that encompasses variables that work both to motivate and control criminal behavior and to promote and undermine conformity (Akers & Sellers, 2009).

Akers describes four major concepts: differential association, definitions, differential reinforcement, and imitation. Differential association contains behavioral-interactional and normative decisions. Behavioral-interactional is the direct association and interaction with others who engage in specific types of behavior. The normative aspect is the different patterns of norms and values to which an individual is exposed through groups and associations. Definitions are one's attitudes or meanings that the individual attaches to any given behavior. These definitions are both general (religious, moral, and conventional values) and specific (motives for a specific act). The greater the extent to which one holds attitudes that disapprove of certain acts, the less one is likely to engage in them. Differential reinforcement relates to the balance of anticipated or actual rewards and the consequences/punishments that may follow. Imitation pertains to the involvement in behavior after an individual observes someone else engaging in it (Akers & Sellers, 2009).

Akers (1998/2006) explains that the social learning process including one's differential association, are indirectly shaped by one's social structure. He identifies four dimensions of social structure that provide the contexts within which social learning variables operate: (I) differential social organization, (II) differential location in the social structure, (III) theoretically defined structural variables, and (IV) differential social location. Differential social organization refers to the structural correlates of crime in the community or society that affect the rates of crime and delinquency including age and population density that lean societies, communities, and other social systems toward high or low crime rates. Differential location in the social structure refers to the sociodemographic characteristics of individuals and social groups (class, race, gender, and age) that indicate their niches within the larger social structure. Differential social location refers to an individual's membership and relationship to primary, secondary, and reference groups such as family, friendships, peer groups, colleagues, and work groups (Akers, 1998/2006).

Differential social organization (I) and differential location in the social structure (II) provide the general learning contexts for individuals that increase or decrease the likelihood of them committing crime. The “differences in the societal group rates of criminal behavior are a function of the extent to which their cultural traditions, norms, and social control systems provide socialization, learning environments, and immediate situations conducive to conformity or deviance” (Akers & Sellers, 2009, p. 90). Moreover, “the structural conditions identified in
macro-level theories can affect ones’ exposure to criminal associations, models, definitions, and reinforcement to induce or hinder criminal actions in individuals” (Akers & Sellers, 2009, p. 90).

Boeringer's (2006) rape and sexual coercion study of 700 college males found that the social learning variables of association, reinforcement, definitions, and imitation explain the self-perceived likelihood of using force to gain sexual contact or commit rape. These variables also predict the actual use of drugs or alcohol, non-physical coercion, and physical force by males to obtain sex.

Boeringer (2006) also shows that college fraternities reinforce delinquent values in its members regarding women, drinking, and sex. Men in fraternities learn in these environments through “brotherhood” activities (parties, living in fraternity houses, interacting with other brothers) the values they are to follow. Specifically, same-sex housing that is commonly found among fraternities may provide situations supportive of beliefs, behaviors, and reinforcements conducive to rape; the close, all-male environment encourages the learning of rape-supportive attitudes. These fraternity houses have also been the setting for most known acquaintance rapes on American college campuses (Bohmer & Parrot, 1993).

Sanday, Martin, and Hummer (2009, as cited in Minow & Einolf, 2009) argue, “fraternities perpetuate a hypermasculine and overaggressive culture that objectifies women, advocates impersonal and sometimes exploitative sex, emphasizes competition and male superiority, provides role models and support for sexually coercive behavior, and fosters brotherhood bonding through open discussion and encouragement of female subservience and sexual exploitation” (p. 840). “Brothers” commonly learn from their friends that they are supposed to have stereotypical masculine attributes such as athletic skills, a high tolerance for alcohol, and sexual success with women. In many fraternities, men are taught that, “having sex with a woman who has passed out is a legitimate form of seduction because force was not used” (Schwartz & DeKeseredy, 1997, p. 52).

Many fraternities breed in their members a form of dependency that protects members from challenging beliefs, and these “brothers” do not reveal their peers’ deviant or abusive behaviors to outsiders. Some researchers have argued this code of silence and the demand for group loyalty means that few crimes committed in fraternity houses are punished (Schwartz & DeKeseredy, 1997).

Masculinities

James Messerschmidt's (1993/2006) Masculinities and Crime theory emphasizes that crime is seen as a resource for “doing gender” (showing one is masculine). He argues crime is most likely to occur when, “legitimate means of demonstrating masculinity are stifled” (Messerschmidt, 1993/2006, p. 383). He states, “all males act to do gender within the confines of the dominant conception of masculinity which teaches that heterosexual men are superior to women” (Messerschmidt, 1993/2006 p. 384). Messerschmidt (1993/2006) recognizes this as hegemonic masculinity, which is “defined through work in the paid-labor market, the subordination of women, heterosexism, and the driven uncontrollable sexuality of men” (P. 384). Hegemonic masculinity “emphasizes practices toward authority, control, competitive individualism, independence, aggressiveness, and the capacity for violence” (Messerschmidt, 1993/2006, p. 384).

Most men engage in practices that attempt to sustain hegemonic masculinity, and when men enter a setting, they undertake social practices that demonstrate they are “manly.” Researchers argue the only way others can judge a man’s “essential nature” is through his behavior and appearance. Thus, men separate themselves from all that is feminine. Hegemonic masculinity also involves practices characterizing dominance, control, and independence (Messerschmidt, 1993/2006).

In addition to the preservation and promotion of hegemonic masculinity among fraternity brothers in many fraternities (Schwartz & DeKeseredy, 1997), the legacy of man’s dominance over collegiate sports is also presumed to help preserve traditional hegemonic masculinity within sports networks on college campuses (Gage, 2008). Researchers suggest problematic consequences of hegemonic masculinity, which includes “attitudes and behaviors that are personally or socially harmful to men attempting to maintain this gender status” (Gage, 2008, p. 1022). Hence, institutions that enforce such notions of masculinity can simultaneously promote repressive gender attitudes of women and problematic sexual behavior.

For example, most fraternities are valued on “brotherhood bonds,” which may be linked to convincing men that they can only achieve masculinity by putting down and ridiculing everything that is feminine. Large numbers of men on college campuses are concerned with doing masculinity: developing their self-worth and self-esteem by doing acts that will win them the approval of their peers (Schwartz & DeKeseredy, 1997).

Researchers have theorized that pressure to conform to sports teams’ norms of masculinity may also lead to aggressive
behavior off the field. Miller, Sabo, Farrell, Barnes, and Melnick (1998, as cited in Gage, 2008) found that male athletes began having sex earlier, had more partners, were involved in more sexual encounters, and displayed a higher propensity for sexual violence than nonathletes. Frintner and Rubinson (2003, cited in Gage, 2008) found that members of sports teams were overrepresented among initiators of sexual aggression. Koss and Gaines (2004, as cited in Gage, 2008) reported that involvement in sports is significantly related to sexual aggression.

Many men on college campuses have come to see the sexual conquest of women as a form of doing masculinity (Schwartz & DeKeseredy, 1997). The hyper-erotic notion that they can achieve status (or security in their gender identity) only by “working a yes out” (making it easier to sexually coerce a woman by feeding her drugs or alcohol) even if she is unconscious or struggling physically, is an important reason why college men devote so much attention to “scoring.” “Working a yes out of a woman,” is viewed by many fraternity members as a, “safer path to gaining sexual access to a reluctant, non-consenting women than [is the] use of physical force” (Abbey et al. 2003, p. 821).

When these men belong to a male peer-support group that ridicules women, it maintains and reinforces these attitudes consistently, which is a powerful combination: a male motivated to prove masculinity by scoring by any means necessary, who has no empathy for his sexual partner/victim and is sure that he has the right to do so, and the peers who approve and encourage his behavior. Schwartz & DeKeseredy (1997) argue, “men are constantly reminded of their power and dominance, but they feel ceaselessly under threat from women. They do not feel powerful and, moreover they feel as if women have power over them” (p. 64). Some men not only have callous sexual attitudes towards women, but also see violence and danger as masculine and exciting, and they may affirm their masculinity by being sexually aggressive towards young women on college campuses.

Routine Activities Theory

Felson and Cohen’s (1979/2006) routine activities theory has two major propositions. First, it asserts that in order for crime to occur, motivated offenders must encounter suitable targets in the absence of capable guardians. Second, it argues that the probability of this situation occurring is influenced by a person’s “routine activities” (work, family, and leisure activities). The relative presence or absence of the three main elements (motivated offenders, suitable targets of criminal victimization, and capable guardians of persons or property) may change, and, “the risk of criminal victimization varies dramatically among the circumstances and locations in which people place themselves and their property” (Akers & Sellers, 2009, p. 36).

Routine activities are “recurrent and prevalent activities that provide for basic population and individual needs” (Akers & Sellers, 2009, p. 36). They also emphasize that crime prevention and deterrence naturally occur in the informal control system; the “quiet and natural method by which people prevent crime in the course of daily life” (Akers & Sellers, 2009, p. 37). This control occurs as people, “interact and bring out the best in one another” (Akers & Sellers, 2009, p. 37).

Routine activities theory helps to explain high rates of sexual assault on college campuses. Schwartz & DeKeseredy (1997) argue that, “American college campuses are rape-supportive cultures, where values and beliefs that support and encourage the sexual victimization of women are widely available to men” (p. 21). They state, “this culture may not only encourage aggression but may make it easier to get away with it by failing to provide any informal or formal deterrence” (Schwartz & DeKeseredy, 1997, p. 21). “Suitable targets” flourish in the number of women who routinely attend parties and voluntarily ingest large amounts of alcohol or drugs on campus, and the lack of effective deterrence on most campuses particularly an absence of effective guardians at these parties increases the likelihood of victimization (Schwartz, DeKeseredy, Tait, & Alvi, 2001).

Schwartz and Pitt (1995) contend that two lifestyle factors increase women’s suitability for sexual victimization. First, “women who are sexually assaulted are statistically likely to go out drinking more often than other women, and second these women are more likely to report that they have male friends who they knew tried to get a women drunk in order to victimize them sexually” (Schwartz et al., 2001, p. 631). Fraternities provide an atmosphere that encourages heavy alcohol consumption and endorses drinking at social functions. This shows a “convergence between two aspects of routine activities theory: likely offenders – men who are sexually aggressive, and who often belong to all-male, pro-abuse subculture – and suitable targets – women who are so chemically incapacitated that they cannot resist these men’s coercive sexual advances” (Schwartz et al. 2001, p. 633). Most college campuses are too often, “effective guardian absent;” meaning no one is watching the behavior of these males or punishing those who commit violent sexual offenses.

Most fraternity members engage in significantly greater levels of sexual assault through drugging or intoxicating women to render them incapable of consent or refusal (Abbey, Sherrod, McAuslan, Zawacki, & Buck, 2003). Some men deem
it appropriate to force a drunken woman to have sexual intercourse because she is designated as a “legitimate sexual target.” Legitimate sexual targets help men convince each other that they can excuse and justify violence against women.

Summary

Akers' social learning theory emphasizes that men learn from each other both values and appropriate behaviors when living on college campuses. Messerschmidt's masculinities theory argues in order for men to show they are “manly” to others they have to display hegemonic masculinity at all times. He stresses men who show they are dominant and controlling will be more likely to engage in sexual assaults. Felson and Cohen's routine activities theory indicates that motivated offenders (college males) are more likely to come into contact with suitable targets (intoxicated women) with no guardians present at college parties. They reiterate that with no guardians present, motivated offenders will almost always be able to commit crimes. College men, who learn from their “brothers” hegemonic masculinity values, are more likely to commit campus rape at parties where suitable targets are present and capable guardians are absent.

POLICIES

Current policies do very little to prevent rape. Many of these policies are recent responses to publicity and lawsuits against colleges, in which each institution sought to, “make clear the college’s position disapproving of the behavior” (Bohmer & Parrot, 1993, p. 130). Moreover, most policies focus on the victim or seek to address the rare occurrence of stranger rape. From routine activities theory, masculinities and crime theory and social learning theory, it is clear that a policy that includes educational and interactional programs aimed at fraternities and athletic teams, alcohol prohibition on the college campus, and the enforcement of current penalties is needed.

Current Policies

Currently, six major federal legislations address campus violence: Crime Awareness and Campus Security Act of 1990, the Buckley Amendment Clarification (1992), the Campus Courts Disclosure Provision (1998), the Jeanne Cleary Disclosure of Campus Security Policy and Campus Crime Statistics Act (1998), the Campus Sexual Assault Victim's Bill of Rights Act (1992), and the Campus Sex Crimes Prevention Act (2000). These laws outline the response procedures after a campus rape has been committed, but they do not specify enforceable guidelines for college campuses.

The Crime Awareness and Campus Security Act of 1990 is a landmark federal law that requires colleges and universities to disclose campus crime statistics and security policies in an annual security report. It also requires that a timely warning be issued about ongoing threats (Paludi, 2008). To ensure that campus police and security records about crimes are not improperly hidden among confidential student educational records, the Buckley Amendment Clarification (1992) was implemented. This revised the federal law, the Buckley Amendment, which keeps student records (grades, health charts) confidential (Paludi, 2008). In 1998, the Campus Courts Disclosure Provision was added to the Buckley Amendment, which requires that the final disciplinary action taken by a college or university against a student accused of a crime of violence be publicly disclosed. Previously this information had been considered confidential (Paludi, 2008).

Also in 1998, the original 1990 Crime Awareness and Campus Security Act was renamed the Jeanne Cleary Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly referred to as the Jeanne Cleary Act. This act expanded its crime reporting requirements to include additional geographic areas and crime categories. It also added a public crime log requirement for institutions with a police or security department (Paludi, 2008).

The Campus Sexual Assault Victims’ Bill of Rights (1992) sets provisions as part of the “Campus Security Act,” and requires colleges to have sexual assault policies that guarantee certain basic rights for all sexual assault survivors. These provisions also expand the scope of sexual assault statistics that colleges report (Paludi, 2008). Finally, the Campus Sex Crimes Prevention Act (2000) amended the Jeanne Cleary Act to ensure that the students and the community are notified when a sex offender is enrolled or works at the higher education institution (Paludi, 2008).

Most college campuses also provide procedures to be followed once a sex offense has occurred and the possible sanctions that may be imposed (Potter, Krider, and McMahon, 2000). These policies target the victims of the crimes and outlines the legal mandates of what should take place if a rape or sexual assault occurs. These policies do not help to prevent this violence.

While most universities provide campus sexual assault programs for women, including education “to promote the awareness of rape, acquaintance rape, and other sex offenses, forcible or nonforcible” (Potter et al., 2000, p. 1347), they do not mandate sexual assault prevention education for men. Moreover, most policies target stranger assaults when most research has shown that acquaintance assaults are the most common form. Potter et al. (2000) state, “extremely expensive blue lights with hotlines to the campus police do absolutely nothing to improve safety for women, it is always easier to change the physical
environment than it is to respond to the attitudes and beliefs that perpetuate and legitimate sexual assault on the college campus” (p. 1347).

Proposed Policy
The proposed policy suggests educational and interactive programs for men (more specifically members of fraternities and athletic teams), harsher alcohol policies, and harsher enforcement and penalties of already implemented student conduct rules on campuses. Potter et al. (2000) explain that, "since it is men who are the offenders, it should be men not women who change their behavior” (p. 1347). This is the one essential strategy that most colleges have not used.

A comprehensive and effective educational program should provide information to students, faculty, and staff about which behaviors constitute sexual assault and what to expect if it happens. Many men and women are often unaware that to have sex with a woman who has passed out, or lost the ability to meaningfully consent, is in most jurisdictions in the United States a form of rape. These educational programs should be developed, run, and sponsored by students, which could increase the likelihood of attendance and have a greater impact. Male student leaders such as fraternity presidents and sports team captains are more likely to receive greater support from their brothers and teammates (Bohmer & Parrot, 1993). Sororities and fraternities should co-organize an educational program encouraging a dialogue between men and women about sexual assaults (Boeringer, 2006).

These changes can address the causal factors in Messerschmidt’s masculinities and crime theory and Akers’ social learning theory. Educational programs that have respectable, positive influences teaching men on rape prevention, are more likely to be attended, respected, and influential. Speakers would provide positive ways for men to see how their hegemonic masculinity affects the campus community, and these men may be more encouraged to change their behavior.

Enforcing a prohibition of alcohol on campus is crucial to reducing the incidence of acquaintance rape (Bohmer & Parrot, 1993). This policy could be easily implemented, and in fact, many colleges throughout North America have shut down student pubs, prohibited campus parties that involve alcohol consumption, and banned alcohol from dormitories and campus apartments (Whitaker & Pollard, 1993). Student consumption of alcohol should be discouraged not only because alcohol is illegal for most students, but also because it creates an environment in which acquaintance rapes are most likely to occur (Whitaker & Pollard, 1993). Without alcohol, fewer suitable targets and more capable guardians, as routine activities theory explained, would be present.

Some penalties imposed on fraternity members who are convicted of illegally possessing alcohol, serving to minors, or sexual assaulting or raping a woman should include: disbandment of the member’s fraternity chapter, prohibition of campus activities for a specified time, prohibition of alcohol at fraternity events, prohibition of fraternity members holding office in student government or having any campus position of leadership, requirement for community service (i.e., participation in rape prevention programs for all fraternity members), restriction of female guests in their houses, loss of campus housing, and a requirement that the fraternity develop and record its official position on sexual violence, and develop guidelines to ensure that the policy will be enforced (Foubert & Perry, 2007). Most of these policies are presently in place in many fraternities on college campuses; enforcement of those should be increased.

CONCLUSION
Social learning theory, masculinities and crime theory, and routine activities theory explain the alarming prevalence of campus rape on college campuses. Akers’ social learning theory explains how men on college campuses learn the importance of being masculine (Messerschmidt) and that it is appropriate to sexually coerce intoxicated women who in their routine activities (Cohen and Felson) attend parties. A required educational program for fraternities and athletic teams may be more effective in reducing campus rape. Current legislation is limited in its ability to prevent campus rape. The legislation only provides college officials with procedures of what to do after a campus rape occurs. If the athletic teams’ and fraternities’ policies currently in place are enforced more rigorously than assailants may be deterred. Furthermore, if awareness about alcohol consumption and the likelihood of sexual victimization is increased, more aggressive preventative measures may be taken and then campuses and college parties can be safer environments.

References

Early American Literature in the Elementary School Classroom

AMANDA SULLIVAN

The goal of the American educational system should be to teach an individual to become an independent thinker who can form his or her own view. This goal is very hard to obtain, because textbooks often provide a skewed view, but if educators make creative use of literature, students can learn to become independent thinkers. Students need to acquire this deeper understanding in order to learn critical literacy or the ability to “question, examine or […] dispute” texts (McLaughlin 14). One important tool educators can use to help develop this critical capacity is literature, in particular literature about slavery. Grade five students can be introduced to excerpts from a variety of eighteenth and nineteenth century texts, and secondary literature about those texts. This essay explores ways to use selections from The Interesting Narrative of the Life of Olaudah Equiano, The Life and Times of Cotton Mather, and the poems “On Being Brought from Africa to America,” and “To Sir Toby.” Thoughtful use of this literature introduces young students to complex and rich ideas concerning slavery.

A teacher’s first challenge is introducing students to Africa. In the Massachusetts curriculum frameworks, fifth grade students do not study Africa’s history; therefore they cannot accurately imagine where the majority of slaves were born. The history of Africa may not be in their curriculum, but literature always is. Excerpts from The Interesting Narrative of the Life of Olaudah Equiano, by Olaudah Equiano, could easily be enjoyed and read by the class while the teacher discusses Africa. Equiano’s autobiography succeeds at making Africa into a place of commerce and excitement. This view is different than most textbooks, which describe Africa as an underdeveloped continent. Instead Equiano describes Africa as “a nation of dancers, musicians, and poets” (676). In other words, Africa has culture and was successful long before Europeans started to invade. Janelle Collins, in “Passage to Slavery, Passage to Freedom: Olaudah Equiano and the Sea,” writes, “Part of Equiano’s task in the opening chapters […] is to geographically and rhetorically contest the accepted images of both Africans and Europeans” (213). For example, Equiano describes a dance ritual, which shows how Africa is this nation of culture:

The assembly is separated into four divisions, which dance either apart or in succession, and each with a character peculiar to itself. The first division contains the married men, who in their dances frequently exhibit feats of arms, and the representation of a battle...
Equiano is not the only American writer to point out the horrendous nature of slavery. “Sir Toby,” by the white Eighteenth Century poet and newspaper writer Philip Freneau, is a difficult poem, but if introduced in stages its message becomes accessible to students. Introducing students to Freneau also teaches students that while the vast majority of Americans in the early Republic either supported or were indifferent to slavery, some, like Freneau, spoke out against it. If one feels the whole poem is not manageable, excerpts can also be used. Freneau writes, for example:

Ye powers! who formed these wretched tribes, relate
What had they done, to merit such a fate!
Why were they brought from Eboe’s sultry waste,
To see that plenty which they must not taste-
Food, which they cannot buy, and dare not steal;
Yams and potatoes—many a scanty meal! (ll.19-24)

Like Equiano’s writing, this passage demonstrates that slaves were taken from their home to be mistreated and starved. Freneau makes it clear that slaves rarely got to enjoy the “plenty” that white Americans enjoyed. He also mentions the fact slaves had no money and to steal the “plenty” could mean death. Depending on the maturity level of the fifth graders, an educator could include Freneau’s message about a slave’s life being hell. Freneau uses visions of “whips on whips” (l.7) and “howlings” (l.8) to recreate a realistic hell. He also switches to a sarcastic tone when he refers to slaves as a “black herd” (l.14). The overall tone of disgust underscores Freneau’s recognition that enslavement turned human beings into a herd of animals.

Reading a poem that speaks out against slavery, can only increase a child’s shock when he or she finds out almost all wealthy, Southern white men, including our third president, Thomas Jefferson, owned slaves. James Loewen, a researcher of history textbooks, found that “half of our textbooks never note that Jefferson [and other Founding Fathers] owned slaves” because it is too controversial (Loewen 147). Confronting this alarming controversy, however, creates curious students, which gives them energy and desire to learn even more about slavery. While students are shocked and saddened to learn about the errors of our Founding Fathers, it is important for them to know that slavery did not crush African-Americans; rather, they adapted and survived in this oppressive environment. For this purpose, students should be referred again to Phyllis Wheatley’s history and the poem, “On Being Brought from Africa to America.” Students had previously read this poem to learn about Africa; now, however, students can learn that Wheatley found the joy of religion while enslaved. Her owner John Wheatley, “taught [her] to read and write” (Gura 751)
as well as raise her as a Christian. Because of her conversion to Christianity – not her enslavement – she was grateful that she was brought to America. To show her appreciation to God she writes, “Twas mercy brought me” to America (l.1). This appreciative statement is only for God’s work. It is important that students understand that she not thanking the system of slavery or white people. Learning the background of this poet, however, helps students understand that some slaves were educated and that many found joy and hope in religion. Her poem expresses this gratitude for God and the benefit of religion she received by being an American slave.

Wheatley was not the only one who experienced the occasional civil white slave owner, and explorations of these relationships can humanize and complicate the frightening and foreign study of enslavement. For example, Richard Baker, a white slave owner, and Equiano had “a friendship [that] was cemented” (689). When Baker passed away, Equiano writes, “I lost at once a kind interpreter, an agreeable companion, and a faithful friend, who at the age of fifteen, discovered a mind superior to prejudice; and who was not ashamed to notice, to associate with, and to be the friend and instructor of one who was […] a slave!” (689). Equiano’s insight into Baker’s character demonstrates that kind, considerate and unbiased men existed among the world of slavery, and his inclusion of Baker’s character proves that he wants to paint a full picture of his world and the relationships he forged in it. He did not include only the bad or the good; he wrote a well-rounded piece of literature that provides many examples for students who need to understand that slavery was an integral part of society. When presenting excerpts, like this one, to students, teachers must emphasize the point that despite moments of civility, the overwhelming feeling towards African Americans was negative and the majority of the white race treated African American cruelly. In other words, Richard Baker was a rare exception.

To demonstrate how rare Richard Baker really was, and to remind students that slavery was not exclusively a Southern institution, educators can introduce students to The Life and Times of Cotton Mather by Kenneth Silverman as well as some of Mather’s sermons. While these texts are a little advanced for fifth graders, the ideas in them are central to an understanding of the history of slavery and can be shared successfully with students. Cotton Mather’s treatment of his slave, Onesimus, is well documented and clearly explained in Silverman’s book. Here Silverman clarifies that Puritans thought “servants were to be treated as family members” (264). Because of that, Mather allowed Onesimus “to read and write,” “to marry” and “to work outside the house” (264). In Mather’s sermons, however, he made it clear there was a division and order between slave, master, and God. In “God of Order” Mather addresses “masters and servants separately (though not equally)” (Ceppi 220). Mather’s goal was to make masters realize that while they are masters to slaves, they are also servants to God. He believed masters must make the slaves, or servants as he called them, realize that their future happiness can only be achieved in heaven if they follow both God and their masters. By studying Mather’s relationship with slaves, a student will realize that American religious leaders participated freely in slavery because slavery was not seen as evil; rather, slavery was seen as “a proper form of education for them” (Loewen 144). As a teacher one should make sure students understand that this is not an acceptable excuse; rather a teacher should emphasize that slavery was so entwined in society that religion had to be adapted to make it seem appropriate.

Nearly all aspects of European-American culture (religion, economics, etc.) benefited from African slavery. The economic rewards for participating in the system of slavery even induced Africans to become involved in the trade. In addition, a form of slavery materialized in some parts of Africa. Students, however, are not told that Africans participated in this cruel and horrendous system. Edward Lucie-Smith, in “Slavery For Beginners,” writes, “One myth […] is that the slave trade was purely a matter of whites exploiting black” (44). An excerpt from Equiano clarifies that slavery existed in Africa. However, it was a milder form of enslavement, and not a permanent state dictated by skin color, as students will find out when they read about a “mistress” that followed his “custom” and whose “language […] resembled [his] so nearly” (681). This paragraph is rather long, because Equiano goes into great descriptive detail of how this “mistress” treated him “as [he] had been used to” (681) and allowed other slaves “to attend” to him because “she had a number of [other] slaves” (681). The reader also learns that “all the nations and people [he] had hither passed through, resembled [his] own in their manners, customs, and language” leading readers to realize that the “mistress” is African (681). Equiano, therefore, presents an African woman as a kindly slave owner, which few if any textbooks ever mention. Students, however, must understand that slavery in Africa allowed for social mobility, was not a permanent state, and did not include the violent practices of European-American slavery. One was not permanently a slave; rather they were more similar to indentured servants. Acknowledging that some Africans were familiar with slavery in their native lands while underscoring the differences between European and African slavery provides students with a richer and more complex understanding of the history of slavery.

Freneau’s poem, “To Sir Toby,” further explains how blacks participated in the system of slavery. This time, however,
Africans become involved in slave trading in response to the European-dominated economic system. In Freneau's poem, and in reality, the economy forced Africans to betray one another. In "To Sir Toby" Freneau describes the fate of black West Indian slaves who sought refuge with other escaped slaves in the hills of Jamaica. Freneau writes that these refugee slaves were "...hardly safe from brother traitors there." Because he includes the "brother traitors" readers realize that other black men profited by turning in the escaped slaves. It is important for students to realize what Freneau means in these lines: the European-dominated economic system is so fueled by slavery that even freed slaves resort to profiting from slavery. As Edward Lucie-Smith writes, "The white traders needed reliable sources of supply, and the suppliers were blacks"; therefore, slavery was not always white against black and students should be aware of this tragic reality. White males were not the only threat to a slave; the evil of slavery was such that even a "brother" will bring a slave back to his or her master for an economic reward.

After students realize how atrocious and complex the system of slavery was students may start to develop pity for the "helpless" African. This pity is the reason why many teachers and black students dislike discussing slavery in school. It is one of the worst consequences of studying slavery without the literature. Literature, like Equiano's narrative, shows that many slaves were not helpless, but rather took a stance against their owners. Equiano tells of an incident where he refused to be sold. He writes of an exchange between himself and his master,

"Then," said he, "you are now my slave." I told him my master could not sell me to him, nor to anyone else. "Why," said he, "did not your master buy you?" I confessed he did. "But I have served him," said I, "many years, and he has taken all my wages and prize money, for I had only got one six pence during the war; besides this I have been baptized, and by the laws of the land no man has a right to sell me." (692)

Equiano, like other slaves, has the courage to face his master and demand to be released. Here Equiano is using the religion he adopted from the culture that has enslaved him. This great contradiction in belief and action is significant. It should be pointed out to students that though Equiano believes that his Christian faith teaches "no man" can be sold or bought, this interpretation of Christian doctrine was unpopular, and in some states, preaching Christianity to the slaves could cause imprisonment or death. Because of that, Equiano's strong reasoning did not stop the master from selling him. The effort and strong argument from Equiano does, however, show his great courage and prove that Equiano was educated and able to stand up for himself, and he is ultimately successful in purchasing his own freedom. He includes this moment of his life to show just that and educators should share this moment in the text in order to avoid the pity many students feel for the "helpless" African.

Wheatley's poem also resists the idea of the "helpless" African. "On Being Brought from Africa to America" ends with an important message that puts "Christians" and "Negroes" on the same plane. Wheatley writes, "Remember, Christians, Negroes, black as Cain / May be refined, and join the angelic trains" (ll. 7-8). The use of the comma puts "Christians, Negroes, black as Cain" as members of a list (l. 7), all of whom "may be refined and join the [same] angelic train" (l. 8). Wheatley is very subtly taking charge and making a bold statement that makes all races equal before God. These two lines demonstrate how slaves -- in this case, an enslaved woman poet -- took chances to point out the wrong in slavery. It is so important for students to realize that slaves did indeed try to help themselves, had pride in their own accomplishments and an understanding of their own rights as human beings, regardless of their treatment in the white-dominated society.

Phillip Freneau also realized the importance of changing this stereotype. In "To Sir Toby," he writes of the escaping slaves, "Here, they, of stuff determined to be free / Must climb the rude cliffs of the Liguane" (ll. 53-4). Freneau points out that the slaves are made "of stuff" or courage and "determined to be free" (l. 53). These men do whatever it takes to reach freedom, even climb "rude cliffs" (l. 54). Freneau's use of adjectives underscores the slaves' passionate determination to be free. By pointing these word choices out to students, they can realize the bravery needed to live life as a slave.

It is of uttermost importance to make the lesson of slavery something current African-American citizens can be proud of rather than something they need to hide. The message should be that their ancestors were strong enough to endure these tough times and fought hard against their oppressors. One should never feel a slave ancestry is shameful or that slaves were weak. Philip Freneau does just that in "To Sir Toby" because he makes sure readers realize that slaves had great strength, courage, and determination.

Slavery has been a touchy, uncomfortable topic for many teachers because our society has taught a slanted and skewed version of the truth. In order to prevent this issue from causing concern in the future, educators need to teach students the information that is found in Early American Literature. This literature will not only help students become better readers, but help them become critical, independent thinkers. It is every educator's job to encourage students to seek the truth and think...
about matters on their own. Grade five students tackle the issue of slavery and if a teacher can introduce each student to at least parts of *The Interesting Narrative of the Life of Olaudah Equiano*, “On Being Brought from Africa to America,” *The Life and Times of Cotton Mather* and “To Sir Toby,” the student will begin the process of becoming an independent thinker, which is, after all, the goal of every educator.

**References**


1st and 2nd Year Work

THE UNDERGRADUATE REVIEW
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Silent Devotion

THU HUYNH

On my first day I stepped into class, I attempted to avoid nervousness and unfamiliarity which usually happens to all freshmen. My first class started at 9:05; I saw a lot of people sitting in class, and I thought that I was already late. I opened the door and everyone looked at me like a stranger. The one who looked at me with a tender smile was Professor Jennifer K*, my math teacher. She asked me whether or not I should be in her class at this time; politely, I answered her that my class started at 9:05. Then she told me that I should be in her next class. I was embarrassed and ran out of class. But one thing I realized was that my math professor was a friendly person. She made me feel like I was still in high school.

When the class I was supposed to be in started, I did not know any of my classmates; we sat down without noticing each other. I missed the familiar feeling from high school, where I had a lot of friends and teachers who were very sociable to me. While I was wandering into those memories, my professor started calling people's names out for attendance. Later, she introduced herself to us with a smile that she gave me the first time I saw her. Moreover, she shared her experiences about how to be successful in college, and told us some funny jokes about her nephew who was also starting college that year. There is something about Professor Jennifer K that makes me feel comfortable to get close to her; her attitudes changed my opinion about college professors, whom I had pictured as very strict and tough. Professor Jennifer K not only teaches math, but also shows us how to be good students. She creates a good environment for learning, and that helps everyone understand math problems easily. My curiosity was awakened, and it made me want to discover more about this extraordinary teacher.

Professor Jennifer K grew up in Brighton, which is a small town near Boston. She got her undergraduate degree at Boston State College in 1967 (now part of the University of Massachusetts at Boston). Her ambition did not stop there; she continued with her education to get masters degree at Boston College in 1977. At that time, women seemed not to contribute a big role in society. They had three choices about their careers: teaching, nursing, and secretarial work. People from the upper class had more career choices than the middle class. Unfortunately, her family was from the middle class, thus she had to pick one of those three choices to be her career. She would overcome that discrimination between men and women to go on with her teaching path.
According to Professor Jennifer K, teaching is a good way to help people open up their minds, and to gain more knowledge to serve in their life later on. She loves teaching and loves showing people how to learn math, a subject that can not be missing from someone's life. Indeed, math is related to everything, and no one can achieve their highest ambition without knowing how to solve simple math. Her eyes looked brighter when she shared with me how she could follow this career until today. “My professor realized about my brightness in mathematics when he graded my test. He suggested that I choose a mathematical profession, and I decided to be a math teacher since then.” Hence, it opened a new path in her teaching career.

Five years ago, Professor Jennifer K came to Bridgewater State College, and started teaching Math 105, Pre-Calculus, and Introduction to Algebra. If anyone needs to take some of these courses for their major, they may have an opportunity to be in her class. You can encounter a gracious professor with a smile on her face all the time. She will not ever be grouchy, even if the students did not study or decided not to do their work. She used to give us some time to prepare our work, “next Friday is the last day to make up your work. If anyone was absent, you can try to get caught up with your work. I will be here at 7:30 in the morning, and from 11am to 12 pm every Monday, Wednesday, and Friday if any of you guys need help.” In addition, she always motivates lazy students to get back to their work by gathering us into groups to work with others. By that way, the students have an easier time of understanding math problems. They get more excited in every lesson. She has forty-two years of teaching experience. It is a big number in a teaching career.

Perhaps her experiences gained more after she traveled to Japan to teach American students there for four years. She said that was a great time for her over there. She said, “Japan is a beautiful country, I love it a lot. I could speak skochi (a little bit) of Japanese” It was a big challenge for a young woman to go to a foreign country where she could not speak her native language, and everything was new to her. I realize that Professor Jennifer K was also a brave woman. Her love for teaching made her fearless, and able to overcome obstacles in her life.

Moreover, her love for teaching was apparent in the stories that she told me. Some say that college professors are bad tempered people; they always force students to study and never pay attention to any student in class. It is not true to describe my math professor that way. She is the most understanding person whom I have ever met before. She told me that there were a lot of students who impacted her during her teaching career; nonetheless, she had one special student who was in a wheel chair. He was not like other disabled people. Some of them used to be negative, and they pushed people away when someone tried to approach to help. “He was a very special, outgoing and wonderful person. He tried to pull people up to him” she said to me. Professor Jennifer K had a passion when she talked about this student whom she met a long time ago. She hoped that every student would have a good positive attitude about life like him. It was an emotional story, and it also expressed her attention toward students.

Professor Jennifer K is a great person. She not only teaches math lessons, but also inspires us with her spirit. She encourages us to do our work and to gain more knowledge from math because it is helpful for us. I come to class every other day from Monday to Friday to learn more from her. She is a remarkable professor. She loves teaching and tries her best to make people get into their work. She does not do that for her own benefit, but for all her students. “I enjoy teaching math, and getting to know students, and helping them to learn makes me feel good” she shared with me. There is nothing that can compare to her amazing teaching, and no words can describe her devotion to bring a stable foundation in math for us. It is the silent devotion of my professor Jennifer K.

*The professor’s name has been changed.*
Thesis

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The Power of Pain Gender, Sadism, and Masochism in the Works of Wilkie Collins

HELEN DOYLE

In his novels No Name (1862) and Armadale (1866), Wilkie Collins explores the social role of women in Victorian England, a patriarchal society that forced women either to submit to the control of a man or rebel at the expense of their own health and sanity. Even though some of his characters eventually marry, thus conforming to social expectations for women, I argue that his portrayal of female characters was subversive. In quests for control over their own lives, Magdalen Vanstone and Lydia Gwilt turn to masochism and sadism, practices which eventually lead to identity loss and self-destruction. Collins suggests that feminine vengeance is provoked by the corrupt laws of the patriarchal order and relocates the source of danger from female sexuality to the social and legal institutions that oppress women.

In several of his novels, Wilkie Collins creates powerful female characters who take control of their own lives and the men in them. Magdalen Vanstone (No Name, 1862) and Lydia Gwilt (Armadale, 1866) use their femininity to take control of the men in their lives through the use of deception and manipulation. Unsatisfied with the way they have been treated by the patriarchal society which governs the social and financial aspects of their lives, these women move forward with a vengeance to claim a legacy to which each believes she is entitled. While using any means possible to attain their goals, Magdalen and Lydia each fall victim to an internal struggle—a process which leads to the dissolution of each character's identity. Magdalen is consistently aware of her own deterioration, whereas Lydia is mostly numb to her own self-destruction. Magdalen seems less conscious of how her actions may be hurting others, while Lydia revels in the pain she is causing the people around her. In the end, Magdalen is able to overcome the pain she has inflicted on herself, but Lydia succumbs to the opposing forces acting within her and takes her own life in what she describes as an act of atonement. Collins uses these two women to demonstrate that engaging in masochistic and sadistic behaviors as a means of attaining social independence ultimately leads to the breakdown of identity and destruction of self. In doing so, he makes a statement about the connections among female sexuality, agency, and identity. Collins, specifically in Armadale, depicts a society in which women “either control others at the expense of passion or they are controlled” and condemns the “corrupt and hypocritical system” that produced these women (Barickman, MacDonald, and Stark 140). No Name also addresses the hypocritical nature of a society that forces women to exercise control at their own expense or live under...
the control of a man. In both novels, Collins condemns the corruption of the social and legal system that leaves women without redress in matters of their own financial and material security.

In patriarchal Victorian England, women were inferior to men in the social order and were expected to be subservient to them in the home. Even the fairly limited public and commercial activities that upper-class women pursued in the eighteenth century were no longer socially acceptable. Instead, women were limited to taking care of the home and were expected to be submissive to their husbands. Working-class women were the exception to the rule of enforced leisure, but middle- and upper-class women were expected to embody this Victorian ideal of feminine domesticity. Regardless of their class status, women were considered second-class citizens in comparison to men. Up until the second half of the nineteenth century, a woman's possessions were all legally owned by her husband and, in the case of a marital separation, the husband had sole rights to the children. Divorces were determined on a case-by-case basis. A husband needed only to claim that his wife was committing adultery, while a woman needed to provide evidence to support a claim against her husband (Altick 50-59).

This was the context within which Collins was writing, but while the influence of the Victorian culture is evident in Collins's novels, his portrayal of women is distinctive among Victorian authors. Dorothy L. Sayers refers to him as “the most genuinely feminist of all the nineteenth-century novelists,” arguing that he displays a respect for women as individuals (qtd. in Lonoff 138). In many of his novels, No Name and Armadale included, Collins chooses to focus on the sexually fallen woman. The fallen woman was a Victorian image founded on Christian beliefs that labeled a sexually deviant woman as having fallen from innocence. Collins gives these scorned women positive traits and traces their lives through to an end that often results in marriage (Frick 343-44). Magdalen is an example; even though she is fallen, she is sympathetic because of her intellect, beauty, and compassion. In the end, she ends up in a happy relationship with Kirke, despite her past actions and flaws. Lydia also possesses several admirable qualities. Like Magdalen, she is beautiful and intellectual. Her naïveté about her own romantic feelings gives the reader a sense of vulnerability with which to sympathize. Lydia, however, does not end up happily married. Her power reaches a climax as her ambitions become increasingly devious and dangerous. She eventually finds herself unable to handle the strength of her own emotions, and she ends her own life.

At a glance, these two endings seem very different, but some critics suggest that Magdalen’s marriage is just as restrictive as Lydia’s death. Patricia Frick argues that many of Collins’s heroines, like Magdalen, only remain independent for so long before they must enter into a marriage and subsequently fall under the control of a man (Frick 343-44). In doing so he “strips them of much of their power, independence, and magnetism” (349). Sue Lonoff suggests that by marrying Magdalen to Kirke, Collins is creating a “defense against the threat of a potentially emasculating female” (151). It is as though by creating his characters Collins is giving credit to women for having the potential to take initiative and be independent, but by then forcing them into either death or marriage he is suggesting that they still need to be kept under control. While No Name does end with a marriage and the arguments suggesting the oppressive nature of such an ending are valid, this novel is certainly not a traditional Victorian marriage-plot novel. Rather than following the narrative conventions associated with love and the marriage market in Victorian society, the bulk of the narrative focuses on Magdalen’s independence and self-fashioning prior to marrying Kirke.

Collins’s deviation from the conventional patterns of Victorian narration is evident in the way he condemns the dominant ideology of gender in the period. In No Name and Armadale, Collins develops two female characters whose flawed characteristics are a result of social injustice against women and a lack of support, both legal and otherwise, for women suffering at the hand of this inequality. He gives Magdalen and Lydia similar traits such as anger, satanic behavior, and suicidal tendencies, to suggest that they are not as different as they may originally appear. Richard Barickman, Susan MacDonald, and Myra Stark argue that “[b]y creating a heroine who is unashamedly sexual, over thirty, worldly, actively scheming rather than passively in pursuit of a husband, and decidedly interested in money, Collins created a dialectic between conformity and deviance: ‘good’ society creates deviants who then prey upon ‘good’ society” (134). While they are speaking of Lydia, it can also be argued that Magdalen serves the same purpose. Her vengeful behavior is a reaction to the way she is ostracized by a society that values birthrights which can only be determined by the contract of marriage and a paternally sanctioned surname. In both cases, the women have suffered because of the social codes set in place by the patriarchal society in which they live. Lydia has been physically abused by her husband, and Magdalen has had her fortune taken from her by her uncle.

While both Magdalen’s and Lydia’s relationships with men suggest that their strong feminine personalities certainly play a role in their vengeful behavior, Collins also suggests that the male-dominated society these women live in and the strict
rules which govern how a female in such a society must act play a key role in inciting their vengeance. Excessive sexuality cannot be the only factor in provoking vengeful behavior since Magdalen’s femininity is what ultimately saves her by attracting Kirke, and the very first acts of vengeance seen in Armadale are committed by men—Ingelby and Wrentmore. Collins chooses to focus on the female characters to show the other influences that affect a woman’s behavior. In No Name, Collins suggests that within every human there is both good and evil waiting for outside forces to force out one or the other. Barickman, MacDonald, and Stark argue that “Victorian society’s oppressive and hypocritical sexual system produces the deviants whom it then piously condemns” (139, italics in original). This argument can be supported by the fact that both Magdalen and Lydia are looking for retribution as a result of legal and social discrimination that causes them, as females, to suffer. Speaking of herself and the way she has been denied her inheritance, Magdalen says, “The sense of wrong haunts her, like a possession of the devil. The resolution to right that wrong burns in her like fire” (No Name 236). These words could have easily been uttered by Lydia as well who lived in an abusive marriage from which she could not escape and who, like Magdalen, finds herself haunted by a devilish desire for justice. Both women feel that they have been wronged by society and it is the resulting anger that drives their vengeance.

Collins makes it clear that male-dominated society plays a strong role in inciting vengeful female behavior, but Andrew Mangham offers the convincing idea that the “concept of the ‘dangerous woman’ could also be, in part, “a shadow of masculine neuroses” and claims this is what Collins is trying to dramatize (196). Citing both Lydia’s relationship with the fatalistic Midwinter and Magdalen’s encounters with the sleep-walking Admiral Bartram, he argues that “the ‘villainess’ is a danger generated and driven by the obsessions of men” (203). Mangham seems to be suggesting that men are so frightened of the power of femininity that they subconsciously provoke in women excessive behavior, such as vengeance, as a way to justify their fears and provide themselves with something to fight back against. Collins does suggest that there is a danger to excessive sexuality, but this danger stems from male fears about female sexual agency rather than from any actual immoderate female behavior. Men want to be in control; they want to control the social order, and they want to control their women. Unobstructed female sexuality thus represents a loss of patriarchal control on numerous levels as it symbolizes a man’s failure to maintain control in other aspects of his life, therefore producing a fear regarding the collapse of patriarchal order as it pertains to the economy, government, military, and other sources of power that were viewed as being purely masculine.

While he depicts both Magdalen and Lydia as socially deviant and as threats to a patriarchal social order, Collins sets up their characters and histories quite differently, painting Magdalen as a sympathetic character and Lydia as a person deserving of the reader’s contempt. They are two women in different stages of life whose experiences have given them very different histories. The narrator emphasizes Magdalen’s youth, exuberance, and naïveté, while it is made clear that Lydia is older and has suffered. Lydia is evil, corrupt, and secretive. The fact that Lydia has secrets of which the reader is not even aware makes her a difficult character with whom to sympathize.

Magdalen is established as a character at the beginning of No Name and from her first introduction Collins uses a limited omniscient viewpoint to reveal the events of her life that cause her to declare her independence and act out against society. There are places where the point of view shifts and Collins employs an epistolary narrative structure to show the point of view of other characters, but the story is primarily told through the eyes of his heroine. The letters Collins provides in these sections are written by various characters, some by Magdalen herself. In their letters, the characters are able to present their accounts of events, emotions, and thoughts in a way that is unobstructed by conversation or third person narration. It is also a way to share the perspectives of various characters without shifting the point of view of the rest of the narrative too often. Since Magdalen’s point of view is shared with readers early on, we are able to begin sympathizing with her from the beginning. We see who Magdalen is before her parents die; we see the way she suffers when they do die; we see what prompts her masochistic behavior; and we watch her suffer.

Collins describes Magdalen’s youth and beauty while also emphasizing her sensuality and vitality. He likens her to a blooming flower—a symbol that signifies a future of growth and beauty. Magdalen bloomed in the full physical maturity of twenty years or more—bloomed naturally and irresistibly, in right of her matchless health and strength [...] the brisk activity of all her movements; the incessant sparkle of expression in her face; the enticing gaiety which took the hearts of the quietest people by storm – even the reckless delight in bright colours [...] all sprang alike from the same source; from the overflowing physical health which strengthened every muscle, braced every nerve, and set the warm young blood tingling through her veins, like the blood of a growing child. (No Name 9)
She is presented as a strong, well-defined character with the potential for growth. Everything about her suggests that she knows who she is. Her appearance and personality are well defined. Magdalen's bright clothing and "overflowing" health suggest femininity and sexuality, but they also suggest excess.

According to Mangham, “[r]eferences to Magdalen as blooming […] are clearly meant to convey ideas of organic fecundity, while the implicit allusions to her over-abundant sexual energies […] identify her as a character with a high level of carnal energy” (184). This implies that Magdalen's innocence does not make her immune to corruption. Her susceptibility, however, is masked by her beauty and health. Through Magdalen, Collins makes a connection between robust physical health and the perceived danger of excessive female sexuality. Magdalen's health is described in sensual terms. Her physical maturity, sparkling expression, and tingling blood mark Magdalen as a character who is strong, healthy, and sexual. In the Victorian era, physical health and female sexuality were linked by childbirth. A woman needed to be healthy to carry and deliver a child and, up until the late 1800s, women were made to believe that conception could only occur if they reached orgasm (Cooper 12-14). According to Suzanne Fagence Cooper, “[h]er latent eroticism was an essential part of the focus on woman as child-bearer” (12). The female's heightened eroticism and emotions, however, were a cause of concern for males who sought to keep female sexuality under control (Cooper 12-14). While women needed to be sexual to carry out their responsibilities as a child bearer, men sought to restrain female sexuality in all other aspects of women's lives.

By describing Magdalen in this way and then developing her as he does, Collins suggests that there is a danger to excessive female sexuality—a view that was common in the nineteenth century. According to the Victorians, “uncontrolled sexuality seemed the major, almost defining symptom of insanity in women” (Showalter 74). This fear led to an increase in attempted control of the female reproductive system and fear of female sexuality (Showalter 74). In No Name, Magdalen's excessive sexuality leads her toward corruption, and she eventually ends up on the brink of insanity: “Her whole nervous system has given way; all the ordinary functions of her brain are in a state of collapse […] She may lie on that bed for weeks to come; passing alternately, without a gleam of consciousness, from a state of delirium to a state of repose” (No Name 580-1). When Kirke finds Magdalen at the end of the novel she is in a state of emotional and physical decline brought on by her self-destructive actions.

Magdalen knows that by attempting to thwart British laws that prevent her from claiming her inheritance she will eventually harm herself. Even her decision to leave her family behind to embark on this quest is plagued by the beginnings of an internal struggle. She writes to her sister: “Try to forgive me. I have struggled against myself, till I am worn out in the effort. I am the wretchedest of living creatures […] If you knew what my thoughts are; if you knew how hard I have fought against them, and how horrible they have gone on haunting me in the lonely quiet of this house, you would pity and forgive me” (No Name 144). Magdalen loses her sense of identity when she is disinherit and loses the prospect for love when Frances subsequently breaks off their engagement. Magdalen's disinherit strips her of her legal right to her last name. She overhears Mr. Pendril refer to her and Norah as “Nobody's Children” and begins to use the term to define herself (No Name 109). She equates her name with her identity and therefore believes that she can longer identify herself as a member of a family or a member of society until she regains her name. She copies extracts from her father's will and letter and on them notes Mr. Pendril's comment: “Mr. Vanstone's daughters are Nobody's Children, and the law leaves them helpless at their uncle's mercy” (No Name 178). She keeps these words close to her at all times as a reminder of what she has lost and what she is seeking to regain—her legal rights to her name and, subsequently, her identity. As a result of her disinheritance and ended engagement, Magdalen also loses her will to be happy. On two separate occasions, she claims: “I have lost all care for myself” (No Name 273, 277). Her lack of self-worth ultimately leads to her decline; it causes her to sacrifice her own happiness and sanity to reclaim her inheritance. She begins to hurt herself by forcing herself to leave her sister and engage in the humiliating pursuit of Noel Vanstone. Her masochistic action of forcing herself into a relationship that disgusts and degrades her eats away at what is left of the youthful, innocent Magdalen until she finally breaks down.

Arguably, the most significant result of Magdalen's masochism is her loss of identity. No Name, like many sensation novels, addresses the anxieties over class identity that developed among the middle classes in the Victorian era (Thomas 180). Magdalen believes that she loses her identity when her father dies intestate. She internalizes the legal status of her family name and begins to substitute her legal condition for her subjectivity. She seeks to regain a claim on her name and inheritance, and subsequently her identity, by finding a contractual way to reclaim them. She plots to marry into her own family so that her marital rights will legally secure her with her rightful name and inheritance. Ronald R. Thomas argues that characters in sensation novels are defined “not as autonomous moral selves, or as members of a family or class, or even by the sum of their achievements; rather, they are defined through a plot of identification that attends most closely to documenting
the material facts of physical embodiment as overseen by the law” (183). Essentially, Magdalen does define herself by the documents of the law. She does not feel as though she can rightfully identify with her name unless it is legally given to her. The loss of her family name causes her to question who she is, but her quest to reclaim the identity she feels was stolen from her ends up breaking her down even further.

According to psychologist Roy F. Baumeister, masochism may be a way to escape from self-awareness (28). The desire for such escape may be present in people who have recently been rejected or been given reason to believe they will not succeed (Baumeister 34). According to Baumeister, “masochism can serve as an effective deterrent to unwanted thoughts and feelings, perhaps especially feelings of guilt, anxiety, or insecurity” (29). These terms have been applied specifically to acts of sexual masochism. Magdalen’s behavior does not involve sexual acts, but it is sexual in the sense that her pain stems from her forcing herself into a sexually charged relationship with Noel Vanstone that disgusts and emotionally drains her. The sacrifices Magdalen makes as she pursues Noel Vanstone certainly diminish her sense of pride and self-worth. Everything becomes inferior in rank compared to her mission to get back her inheritance—including her health, sanity, and relationship with Norah. These things that were once important to her no longer hold the same significance in her life. Her quest to restore her inheritance is now her only focus.

Despite the fact that Magdalen recognizes how she is hurting herself, she continues her painful endeavors to regain her family fortune. Giles Deleuze discusses masochism such as this in his essay “Coldness and Cruelty,” in which he contrasts masochism with sadism: “We are no longer in the presence of a torturer seizing upon a victim and enjoying her all the more because she is unconsenting and unpersuaded. We are dealing instead with a victim in search of a torturer and who needs to educate, persuade and conclude an alliance with the torturer in order to realize the strangest of schemes” (20). The pain Magdalen is suffering evokes a sympathy that outweighs the harm that she is causing others thus making it easier to sympathize with her than to be disturbed by her actions. Anna Jones argues that “Magdalen is not the murderous femme fatale we love to hate, but a loveable heroine whose sins disturb us and cause us pain, just as they disturb and pain her, and whose punishment we both dread and expect, just as she dreads and expects it” (“A Victim” 205, italics in original). Collins consistently juxtaposes descriptions of Magdalen’s emotions with descriptions of her actions, therefore giving the reader insight into the feelings that are driving Magdalen’s behavior. This use of juxtaposition clearly presents Magdalen as a victim of her circumstances and a slave to her own emotions. In Armadale, however, Collins does not reveal Lydia’s history and emotions until after she has already been presented as a character whose actions are despicable.

Unlike Magdalen, who is established as a character at the beginning of No Name, Lydia is introduced toward the middle of Armadale. When she is first introduced into the plot, the third-person limited narrator primarily shares the point of view of either Armadale or Midwinter. We do not get any narrative from Lydia’s point of view initially. It is not until she has already been presented as a malevolent and vengeful character that Collins begins providing letters and diary entries that allow the reader to share her point of view. Before we are provided with her letters and diary entries, Lydia’s manipulative and sadistic behavior makes her detestable. Like Magdalen, she is portrayed as beautiful and sensual. In Lydia, however, these characteristics are described as being a danger both to others and herself. Her sexuality, which is defined by its physical rather than emotional nature, has the potential to enrapture and destroy others while also leaving her vulnerable to emotional pain. She is compared to a siren, a dangerous creature ready to lure men to their deaths: “[S]he had all the allurements that feast the eye, all the Siren-invitations that seduce the sense – a subtle suggestiveness in her silence, and a sexual sorcery in her smile” (Armadale 383). Jonathan Craig Tutor lists Lydia’s attributes as “aggressive eroticism, vampirism, sexual cannibalism, and demonism” (40). Her sinister sexuality contrasts against Magdalen’s youthful purity. Lydia’s sexuality is corrupt and suggests violence, while Magdalen’s sexuality is described as being more natural and untouched by the sexual demands of men. Lydia’s history with men is intertwined with a history of violence. As a teenager, she catches the attention of her married music teacher, who, upon finding himself in love with her, shoots himself. Later in life, Lydia is convicted of murdering her husband. Magdalen has no past experiences with either men or violence. Her first love is Frank Clare, her childhood playmate. Lydia and Magdalen’s contrasting sexualities reflect the two different ways in which the women seize control of their lives: Lydia is already corrupt, so she turns to sadism, while Magdalen desecrates her own innocent self in acts of masochism.

As Armadale progresses, Collins’s narrative style changes, and Lydia’s diary entries bring readers further into Lydia’s mind. Once Collins presents details about Lydia’s past and insights into her emotions, the reader is able to see her suffering and the events that led her to her current life and therefore sympathize with her more and more. Jennifer Hedgecock argues that two processes emerge when Lydia unfolds her story, documenting her vulnerabilities, her manipulations, and her anxieties. First Lydia reveals a split self,
which suggests she is paradoxically a [sic] both good and bad, calculating yet impulsive, and coolheaded but obsessive. On the one hand, she is also a strong, resourceful, independent woman, while at the same time she is a romantic, vulnerable to Midwinter's affection for her. (162)

By providing the reader with Lydia's diary, Collins gives us insight into Lydia's thoughts and emotions and allows the reader to compare those to her actions. As Hedgecock points out, this reveals conflict within Lydia's character. This conflict suggests that Lydia's identity is marked by confusion. Lydia becomes aware of her own paradoxical personality when her struggle between violence and love reaches a climax. Her sense of identity is jeopardized when her love for Midwinter begins to erode her sadistic tendencies. Ultimately, the conflict between her desire to inflict pain and her feelings of love drive her to commit suicide. The one thing she told herself she would never feel again, love, has taken control over her despite her best efforts to resist it. The feelings she has developed are not consistent with her self-image. When she loses her ability to control her emotions, her sense of identity breaks down.

Lydia already has a history of deception by the time she begins plotting against Armadale and using Midwinter to get to Armadale's fortune. If she ever felt it before, she no longer struggles against herself when making her manipulative decisions. Likewise, she has no regard for the suffering of others. In fact, her desire to see others suffer can be interpreted as sadistic. In a letter to Mrs. Oldershaw she writes: “I am in one of my tempers to-night. I want a husband to vex, or a child to beat, or something of that sort. Do you ever like to see the summer insects kill themselves in the candle? I do, sometimes” (Armadale 166). Lydia's sadism may be a reaction to the abuse she faced in her past. By being abusive herself, she protects herself from being hurt again as she was hurt by her first husband who was both controlling, keeping Lydia locked away from society, and physically abusive. She sees this as a way to have control and to conquer her own vulnerability. Her desire for control is evident throughout the novel. She uses people and manipulates them in any way necessary to get what she wants.

Erich Fromm says that there are three types of sadism, defined by the sadist's desire to control, exploit, or cause suffering in other people (144). Based on Fromm's three types of sadism, Lydia falls best under the category of control. Fromm defines control as the desire "to make others dependent on oneself and to have absolute and unrestricted power over them so as to make of them nothing but instruments, 'clay in the potter's hand'” (144). Lydia wants to have control over everything in her life so that she does not fall victim to abusive control. She uses deceit and violence to get what she wants and ultimately Midwinter is the clay in her hands. She manipulates him into doing what she wants him to do, which is evident when he agrees to marry her under his true name of Armadale.

There are moments when Lydia gets a glimpse inside of herself, and the damage she is causing herself is made clear. Toward the beginning of her plot she writes to Mrs. Oldershaw: “In my present situation, and with my present thoughts, the best service you can possibly render me is to lock me up” (Armadale 409). She recognizes that the sadism she once turned to as a means of gaining control is now controlling her and that it may get to the point where she becomes blind to the destruction she is causing. As she foreshadows, Lydia carries on with her plan and becomes so deeply involved with her deception that she cannot slow down or stop. Her plotting begins to define her as she imagines her desired results: “And when I was received as Armadale's widow, what a triumph for me. Triumph! It is more than triumph – it is the salvation of me” (Armadale 447, italics in original). Lydia's obsession with gaining control over everyone around her eventually reaches overwhelming heights and leads to her break down.

As Lydia's sadistic fantasies and narcissistic desires reveal, the threat of insanity is a major theme in Armadale, as it is in No Name. Victorian psychiatrist John Millar claimed to observe that symptoms of nymphomania were “constantly present” in young women diagnosed with insanity (qtd. in Showalter 74-5). This connection between excessive sexuality and insanity, however weak the evidence supporting it may be, is relevant to the characterization of Lydia. Her excessive sexuality is represented in comparisons between her and the sirens of mythology who seduced men to their death, an action not unlike how Lydia wishes to romantically ensnare Armadale before murdering him and claiming his money as her own. She diagnoses herself with insanity while writing in her diary: “Am I mad? Yes; all people who are as miserable as I am, are mad. I must go to the window and get some air. Shall I jump out? No; it disfigures one so, and the coroner's inquest lets so many people see it” (Armadale 434). Here, Lydia's self-destructive notions are overshadowed by her vanity. She is aware that her beauty is one part of her identity that has remained untouched. She clings to her physical attractiveness because she knows, even if it is subconsciously, that the rest of her identity is slowly breaking down.

As the story progresses, Lydia begins to develop romantic feelings for Midwinter despite her best efforts to remain detached from him and from love in general. Up until this point in her life, Lydia has lost faith in love and uses her wickedness
as a shield to protect her from the potential pain that can result from falling in love. When she starts to recognize the effect that Midwinter has on her, Lydia's internal conflict begins to surface: “What can be the secret of this man's hold on me? How is it that he alters me so that I hardly know myself again? [...] I thought I had loved, never to love again” (Armadale 490, italics in original). A few pages later, in her diary, she ends the self-deception and admits that she loves him. This love, as Alison A. Case points out, “leads to [Lydia's] undoing when love overpowers self-interest” (141). By acknowledging her feelings for Midwinter, Lydia is also acknowledging that she is not in control of her emotions.

The desire to have complete control over one's own life is a theme that runs throughout both No Name and Armadale. Both Magdalen and Lydia take charge of their own lives in a way that makes them feel in control. They renounce the control male figures have over them and use their femininity to manipulate and have power over the men in their lives. Barickman, MacDonald, and Stark argue that “Magdalen acts for herself [...] using men for her advantage rather than subordinating herself to them. Though her conscious goal is to regain the name and inheritance unjustly taken from her, she is more profoundly rebelling against the fragility and emptiness of conventional feminine identity” (120). The same can be said of Lydia, who consciously is trying to get a hold of Armadale's fortune, but is also fighting back against the society that forced her to submit to an abusive husband. As a masochist, Magdalen “consent[s] to suffer” (Jones, “A Victim” 204). She accepts from the beginning that she is going to suffer, and therefore inflicts pain upon herself to prevent others from doing it for her. She forces herself into a relationship with Noel Vanstone and accepts the suffering she will have to endure being married to him, rather than allow herself to suffer as a nameless, fortuneless girl.

Magdalen and Lydia each have their own methods for controlling the pain they are to experience as females resisting conformity in a patriarchal society. As a masochist, Magdalen hurts herself before she can be hurt by others. As a sadist, Lydia hurts others before they can hurt her. She tries to bring others down before she becomes attached to them and before they have a claim on her emotions. While both women believe that these approaches give them control over their own lives, both end up losing control and suffering far more than either of them had planned as a result of their own actions.

Magdalen and Lydia both illustrate that the heroine of the sensation novel does not possess the same qualities as the heroine found in domestic novels of the same era. The two women are manipulative and deceitful—not the archetypal traits of a heroic female protagonist. Melynda Huskey says that heroines of sensation novels, like Magdalen, are different kinds of heroines than the heroines of domestic novels. She argues that “they are rarely helpless, rarely innocent, and rarely punished for being neither. They are often guilty of whole Newgate Calendars, including forgery, murder, bigamy, fraud, and adultery” (7). Both Magdalen and Lydia fit this description well, having collectively engaged in fraud, murder plots, and a possible actual murder. Despite this, Collins's readers find sympathy for these women. In each case, albeit in different ways, Collins shows the woman behind the deception. He introduces readers to the pains the women have suffered. He shows the youthful and passionate side of Magdalen and the broken and confused side of Lydia, proving that each woman is not defined solely by her treachery. In Huskey's words, these characters “[remind] us how easily a weak woman can become a wicked woman” (6). In the preface to No Name, Collins informs his readers that the story they are about to read “depicts the struggle of a human creature, under those opposing influences of Good and Evil, which we have all felt, which we have all known” (xxi). Later he asks:

Are there, infinitely varying with each individual, inbred forces of Good and Evil in all of us, deep down below the reach of mortal encouragement and mortal repression – hidden Good and hidden Evil, both alike at the mercy of the liberating opportunity and the sufficient temptation? Within these earthly limits, is earthly Circumstance ever the key; and can no human vigilance warn us beforehand of the forces imprisoned in ourselves which that key may unlock? (116, italics in original)

These words suggest that Magdalen and, arguably, also Lydia are characters who represent a struggle that is human in nature. With them, Collins seems to be suggesting that there is the potential to be evil within everyone, and that influences from society—physical pain, abandonment, etc.—can manifest that latent wickedness into something real. Collins creates these two women who must choose between conforming to the social standards set for them by the patriarchal society or rebelling and taking control of their own lives socially, financially, and romantically. Ultimately, each woman opts for the more rebellious path. While Magdalen turns masochistic in her quest and Lydia resorts to sadistic behavior, both women eventually lose touch with their own identities, subsequently losing much of the very control they are seeking. With these characters, Collins suggests that feminine vengeance is provoked by the corruptions of the sexual system defined by a patriarchal society. Magdalen and Lydia exemplify the idea that danger does not lie in female sexuality, but rather in the oppressive nature of a male-dominated society.
References:


