

A conference for SCHOLARS at two-year colleges

25th Annual DEACON CONFERENCE



ROWLEY CENTER
FOR SCIENCE &
ENGINEERING

PROCEEDINGS

JUNE 2, 2017

ORANGE COUNTY COMMUNITY COLLEGE

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Mentor: Dr. Nathan Zook, Montgomery College	

BEACON 2017 SCHEDULE

8:00 to 8:45 a.m.	Registration and Breakfast buffet	RCSE (Ground Floor)
8:45 to 9:00 a.m.	Welcome	RCSE 010
	• Dr. Michele Iannuzzi Sucich, 2017 Beacon Conference Director	
	• Dr. Kristine Young, President, Orange County Community College	
9:00 to 10:30 a.m.	Session I Concurrent Panels	
	• Allied Health and Nursing	RCSE 102
	• Anthropology.....	RCSE 110
	• Business and Economics	RCSE 112
	• Empirical Research/Natural Sciences.....	RCSE 117
	• Literature	RCSE 202
	• Political Science	RCSE 210
	• Sociology	RCSE 212
10:30 to 10:45 a.m.	Break	
10:45 a.m. to 12:15 p.m.	Session II Concurrent Panels	
	• History	RCSE 102
	• Interdisciplinary Studies.....	RCSE 110
	• Literature: Women's and Gender Studies / LGBT	RCSE 112
	• Philosophy and Religion	RCSE 117
	• Psychology.....	RCSE 202
	• Social Justice	RCSE 210
	• STEM	RCSE 212
12:20 to 1:30 p.m.	Lunch.....	Shepard Student Center (Cafeteria)
	Beacon Conference 25th Anniversary Recognition	
	• Dr. Thomas Butler - Beacon Steering Committee, Rockland Community College	
	• Dr. Mira Sakrajda – Beacon Steering Committee, Westchester Community College	
	• Seamus Gibbons – 2001 Beacon Winner, Westchester Community College	
	• Katie Miller Green – 2010 Beacon Winner, Orange County Community College	
1:30 to 3:00 p.m.	Session III Concurrent Panels	
	• Biology	RCSE 102
	• Communication and Media Studies	RCSE 110
	• Education	RCSE 112
	• International Studies and Globalization.....	RCSE 117
	• Literature: Philosophy and Religion	RCSE 202
	• Multicultural Studies	RCSE 210
	• Women's and Gender Studies / LGBT	RCSE 212
3:00 to 4:00 p.m.	Poster Session and College Fair	Orange Hall (Gallery)
	Introduction	
	• Dr. Michele Iannuzzi Sucich, 2017 Beacon Conference Director	
	Dessert Buffet	
4:00 to 5:30 p.m.	Awards Ceremony	Orange Hall (Richards Theatre)
	Closing Remarks	
	• Erika Hackman, Vice President for Academic Affairs, Orange County Community College	

Building Key: RCSE (Rowley Center for Science and Engineering)

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*The SUNY Orange Beacon Conference directors would like to thank the generous sponsors of the
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The Beacon Conference logo was designed by SUNY WCC alumna Chutipan Singtokaew (<http://www.designbyjam.com>).

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A CONFERENCE FOR STUDENT SCHOLARS AT TWO-YEAR COLLEGES

The Beacon Conference is an annual conference that celebrates the achievement of two-year college students. The conference is funded by the coalition of member colleges listed below in collaboration with the sponsors who support this event. The mission of the conference is to showcase the work of students attending two-year colleges in a range of academic disciplines and to promote an exchange of ideas among them. Additional information is available at www.beaconconference.org.

2017 Members of the Beacon Coalition of Community Colleges

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Ulster County Community College, NY
Westchester Community College, NY

The 2017 Beacon Conference is hosted by Orange County Community College

Michele Iannuzzi Sucich, Director
Samuel Dillon, Co-Director
Stephanie Wish, Co-Director

SESSION I

Allied Health and Nursing

Room RCSE 102; 9:00 to 10:30 a.m.

Nicholas Belsito

Multiple Sclerosis and Autologous Hematopoietic Stem Cell Transplantation Treatment

Mentor – Dr. Michele Iannuzzi Sucich
Orange County Community College

Sarah Keller

Growth and Development in Children with Crohn's Disease

Mentor – Dr. Lynne Kowski
Raritan Valley Community College

Sanjeev Reddy

Can Blood Donation be Good for the Body as well as the Soul?

Mentor - Dr. Michele Iannuzzi Sucich
Orange County Community College

Judge : Dr. Nilank Shah

Touro College of Osteopathic Medicine

Moderator: Professor Sheila Stepp

Orange County Community College

Readers: Professor Linda Hall

Bergen Community College

Professor Joanne Piccininni
Bergen Community College

Professor Tamer Youssef
Lehigh Carbon Community College

Panel Sponsor

SUNY Orange Staff & Chair Association

SESSION I

Anthropology

Room RCSE 110; 9:00 to 10:30 a.m.

Gabriele Huaman

Vanishing Words, Vanishing Worlds: Indigenous Languages and Globalization

Mentor – Professor Cynthia Pfanziehl
Montgomery College

Melissa Rojas

Gorillas' Cognitive and Language Intelligence

Mentor - Professor Shweta Sen
Montgomery College

Domenica Esparza

Dialect Variations on Spanish from the Caribbean and Spain

Mentor – Professor Carolyn Castro
Montgomery College

Judge : Dr. Lauren Meeker

SUNY New Paltz

Moderator: Professor Stephanie Wish

Orange County Community College

Readers: Dr. Cory Harris

Orange County Community College

Professor B. Jo Stokes
Westchester Community College

Professor Jerry Schearer
Reading Area Community College

Panel Sponsor

SUNY Orange Student Senate
(Middletown & Newburgh campuses)

SESSION I

Business and Economics

Room RCSE 112; 9:00 to 10:30 a.m.

Amanda Jo Lazowicki

The Cost of Economic Growth: GDP, Societal Well-Being and the Environment

Mentor – Professor Rachel Plaksa
Lehigh Carbon Community College

Jennifer Eng

Victoria's Secret Expansion into Argentina

Mentor – Professor Laura Sosa
Mercer County Community College

Wyatt Shakespeare

The LEGO Group's Corporate Citizenship

Mentors – Professor Elaine Torda and
Dr. Russell Hammond
Orange County Community College

Judge : Major Patrick Bell
United States Military Academy at West Point

Moderator: Professor Alexandra Kay
Orange County Community College

Readers: Dr. Denise Francois-Seeney
Northampton Community College

Dr. Matthew Connell
Northampton Community College

Dr. Takvor Mutafoglu
Bergen Community College

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SESSION I

Empirical Research/Natural Sciences

Room RCSE 117; 9:00 to 10:30 a.m.

Nallely Connor

Isolation and Characterization of Bacteria from New York City Firefighter Protective Gear

Mentor – Dr. Sarah Salm
Borough of Manhattan Community College

Edison Tenecela

Spectrophotometric Analyses

Mentor – Professor Adessa Butler
Rockland Community College

Ramsey Marte

Testing Herbs for Antibacterial Properties

Mentors – Professor Elaine Torda and
Dr. Michele Paradies
Orange County Community College

Judge : Dr. Spence Mass
SUNY New Paltz

Moderator: Dr. Damon Ely
Orange County Community College

Readers: Professor Jacalyn Speicher
Northampton Community College

Professor John David Loughman
Lehigh Carbon Community College

Professor Holly Morris
Lehigh Carbon Community College

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SUNY Orange Foundation

SESSION I

Literature

Room RCSE 202; 9:00 to 10:30 a.m.

Ariana Lawlor

Biblical Themes Inverted in Christopher Marlowe's Doctor Faustus

Mentor – Professor Jennifer Kaufman
Ulster County Community College

Kathryn Colombo

Melville: Humorist in Revolt

Mentor – Professor Geoffrey Sadock
Bergen Community College

Griffin Jones

Boccaccio, the Brigata, and "Radical Empathy"

Mentor – Dr. Barbara Hamilton
Mercer County Community College

Judge : Dr. Patrick Query
United States Military Academy at West Point

Moderator: Professor Christine Henderson
Orange County Community College

Readers: Professor Jonathan Sponsler
Lehigh Carbon Community College

Professor Jenna Marie Bazzell
Reading Area Community College

Professor Dawn Gieringer
Reading Area Community College

Professor Robert Fuentes [*Tie-Breaker Reader*]
Rockland Community College

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SUNY Orange Foundation

SESSION I

Political Science

Room RCSE 210; 9:00 to 10:30 a.m.

Kevin Grigera

The Falkland Islands Dispute

Mentor - Dr. Mira Sakrajda
Westchester Community College

Emma Trebel

Dementia ≠ Disenfranchisement

Mentor – Professor Effie Siegel
Montgomery College

Benjamin Lee

Indigenous Peoples' Land Rights and the Interplay with Government.

Mentor – Professor Cynthia Pfanstiehl
Montgomery College

Judge : Dr. Gerald Benjamin
SUNY New Paltz

Moderator: Professor Paul Basinski
Orange County Community College

Readers: Professor Jodi Greene
Reading Area Community College

Dr. Robert Muhlnickel
Monroe Community College

Professor Richard Laird
Bergen Community College

Panel Sponsor
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SESSION I

Sociology

Room RCSE 212; 9:00 to 10:30 a.m.

Christopher Geisler

The Changing Demographic and Treatment of Heroin Addiction

Mentor – Dr. Russell Newman
Pennsylvania Highlands Community College

Paul Maitner

Pursuing a Definition of Happiness

Mentors – Professor Elaine Torda and
Professor Vincent Marasco
Orange County Community College

Tasneem Islam

Population Distribution Complex: Questioning the Population Spectrum

Mentor – Dr. Nathan Zook
Montgomery College

Judge : Dr. Peter Kaufman
SUNY New Paltz

Moderator: Professor Stacey Moegenburg
Orange County Community College

Readers: Professor Carol Bean-Ritter
Reading Area Community College

Professor Nancy Lambert
Reading Area Community College

Professor Peter Marino
Rockland Community College

Professor Randy Boone [*Tie-Breaker Reader*]
Northampton Community College

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SESSION II

History

Room RCSE 102; 10:45 a.m. to 12:15 p.m.

Nathanael Linton

The Hidden History of the Atlantic Slave Trade: Subjectivity and Slave Culture

Mentors – Professor Elaine Torda and
Professor Michael McCoy
Orange County Community College

Angie Davidheiser

Unity Abounds: Indian Families of the Great Plains
Mentor – Professor Jodi Greene
Reading Area Community College

Tewodros Abebe

Pioneers of Modern Computing
Mentor - Dr. Carole Wolin
Montgomery College

Judge : Dr. Lee Bernstein
SUNY New Paltz

Moderator: Professor Sheila Stepp
Orange County Community College

Readers: Dr. Sarah Shurts
Bergen Community College

Professor Pamela Longo
Lehigh Carbon Community College

Professor Keith Chu
Bergen Community College

Professor Eric DeAngelo [*Tie-Breaker Reader*]
Lehigh Carbon Community College

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SESSION II

Interdisciplinary Studies

Room RCSE 110; 10:45 a.m. to 12:15 p.m.

Ramoncito Sanchez, Jr.

The Western Front

Mentor – Dr. Bettina Caluori
Mercer County Community College

Carolyn Weller

Robinhoods in Pinstripes

Mentors - Professor Elaine Torda and Dr. Heidi Weber
Orange County Community College

Jose Pereira

Video Games and Story-Telling

Mentor – Professor Bette Petrides
Montgomery College

Judge : Dr. David Gutman
Manhattanville College

Moderator: Professor Vincent Marasco
Orange County Community College

Readers: Dr. Donna Singleton
Reading Area Community College

Professor Randy Boone
Northampton Community College

Dr. Joanna Lackey
Westchester Community College

Dr. Sarah Shurts [*Tie-Breaker Reader*]
Bergen Community College

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SESSION II

Literature: Women's and Gender Studies/LGBT

Room RCSE 112; 10:45 a.m. to 12:15 p.m.

Emma Colchamiro

Yellow is the New Black

Mentor – Professor Liya Li
Rockland Community College

Shaina Mathews

Eternal Love in Love's Fresh Case

Mentor – Professor Stephen Burke
Rockland Community College

Kirsten Bell

Auden and the Art of Insight

Mentors – Professor Allison Carpenter
Rockland Community College

Judge: Dr. JoAnne Myers
Marist College

Moderator: Professor Alexandra Kay
Orange County Community College

Readers: Professor Carrie Myers
Lehigh Carbon Community College

Professor Elizabeth Erwin
Lehigh Carbon Community College

Professor Joey Flamm Costello
Reading Area Community College

Dr. C. L. Costello [*Tie-Breaker Reader*]
Reading Area Community College

Panel Sponsor
SUNY Orange Foundation

SESSION II

Philosophy and Religion

Room RCSE 117; 10:45 a.m. to 12:15 p.m.

Tatjana Voitovica

How Reliable is the Experimental Approach to Philosophical Questions of Happiness?

Mentor – Professor Andres Colapinto
Borough of Manhattan Community College

Taraneh Kelishadi

Philosophical Hedonism in Socrates and Friedrich Nietzsche: An Analysis

Mentor – Dr. Michael Harding
Montgomery College

Judge : Dr. Andrei Buckareff,
Marist College

Moderator: Dr. Damon Ely,
Orange County Community College

Readers: Professor J. Daniel Glass, Jr.
Reading Area Community College

Dr. C. L. Costello
Reading Area Community College

Professor Shamika Mitchell
Rockland Community College

Panel Sponsor
SUNY Orange Foundation

SESSION II

Psychology

Room RCSE 202; 10:45 a.m. to 12:15 p.m.

Tabitha Lockard

The Tuskegee Experiments: Sacrificing Human Dignity for the Sake of Science

Mentor – Professor Jodi Greene
Reading Area Community College

Diyana Kahawita

Racial and Ethnic Disparities In Cesarean Delivery Rates In the United States

Mentor – Professor Brett Pelham
Montgomery College

Ashley Wright

Beauty by Design: The Socioeconomic Implications of Facial Features in America

Mentor – Professor Scott Rudd
Monroe Community College

Judge : Dr. Maryalice Citera
SUNY New Paltz

Moderator: Professor Christine Henderson
Orange County Community College

Readers: Dr. Jennifer Bradley
Northampton Community College

Dr. Cyd Skinner
Northampton Community College

Dr. Paul Siegel
Westchester Community College

Panel Sponsor
SUNY Orange Foundation

SESSION II

Social Justice

RCSE 210; 10:45 a.m. to 12:15 p.m.

Phillip Buffone

Lighter Sentencing for Non-Violent Drug Offenders: "A look at why diversionary treatment programs are a better option than mandatory incarceration."

Mentor – Dr. Ellen Rosner
Westchester Community College

Hannah Shraim

The Power of Lethal Language
Mentor – Professor Effie Siegel
Montgomery College

Ana Wilhelm

Attention Women, Men, and Non Binary Friends! All Heil The Mighty, The Powerful: Masculinity In The 21st Century

Mentor – Dr. Richard Rodriguez
Westchester Community College

Judge : Dr. Margaret O'Donnell
United States Military Academy at West Point

Moderator: Professor Paul Basinski
Orange County Community College

Readers: Kim Stahler, MSLIS
Reading Area Community College

Professor Mecheline Farhat
Bergen Community College

Professor Christine Bowditch
Lehigh Carbon Community College

Professor Samantha Beebe [*Tie-Breaker Reader*]
Northampton Community College

Panel Sponsor
SUNY Orange Foundation

SESSION II

STEM

Room RCSE 212; 10:45 a.m. to 12:15 p.m.

Daniel Pardo Medina

Technological Approaches to Solving the Cost of Space Travel

Mentor - Dr. Carole Wolin
Montgomery College

Chaya Wagschal

Time and Space; the Beginning and the End
Mentor – Professor Saeed Safaie
Rockland Community College

Biagio DeVivo

An Examination of the History and Progression of Computer Programming, Machine Learning and Artificial Intelligence

Mentor - Dr. Mira Sakrajda
Westchester Community College

Judge : Dr. Joseph Skrivanek
SUNY Purchase

Moderator: Professor Stacey Moegenburg
Orange County Community College

Readers: Professor Nancy Moreau
Northampton Community College

Professor Miriam Harris-Botzum
Lehigh Carbon Community College

Professor Gloria Oikelome
Reading Area Community College

Professor Samuel Dillon [*Tie-Breaker Reader*]
Orange County Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Biology

Room RCSE 102; 1:30 to 3:00 p.m.

Carolyn Godfrey

Seeing the Light: Eye Innovation Precambrian to Present

Mentor – Dr. Carole Wolin
Montgomery College

Alexandra Gallagher

Pollution Threats to the Great Barrier Reef and Its Biodiversity

Mentor – Professor Teresa Heisey
Lehigh Carbon Community College

Amanda Biavati

Are the Benefits that Animals Provide to Society Worth the Detrimental Impacts on Domesticated Animals?

Mentors – Professor Elaine Torda and
Dr. Joseph Zurovchak
Orange County Community College

Judge : Dr. Joseph Skrivanek
SUNY Purchase

Moderator: Professor Sheila Stepp
Orange County Community College

Readers: Dr. John Leiser
Northampton Community College

Professor Laura Binderman
Mercer County Community College

Professor Glenworth Richards
Westchester Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Communications and Media Studies

Room RCSE 110; 1:30 to 3:00 p.m.

Miko DiGiacomo-Castillo

Reflections of Social Change on Comedic Television

Mentor – Professor Alexandria Della Fera
Passaic County Community College

Enidrea Jones-Smith

Talking Melodies: Finding the Music in Language Acquisition

Mentor - Professor Aida Martinovic-Zic
Montgomery College

Valerie Mackey

Identity through Discourse: Blending Opinion Commentary into “Hard News” Can Shape an Audience’s Worldview

Mentor – Dr. C. L. Costello
Reading Area Community College

Judge : Dr. Sharon Zechowski
SUNY Purchase

Moderator: Professor Vincent Marasco
Orange County Community College

Readers: Professor Christin Armstrong
Northampton Community College

Dr. Kathleen Williams
Bergen Community College

Professor Linda Kalfayan
Westchester Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Education

Room RCSE 112; 1:30 to 3:00 p.m.

Ashley Beck de Muñoz

Educating Girls to Eradicate Extreme Poverty

Mentor – Professor J. Daniel Glass
Reading Area Community College

Zachary Godwin

The Prosaic and the Poetic: Linguistic Limitation of Creative Thought

Mentor – Professor John Fidler
Reading Area Community College

Zuzu Tadeushuk

Silent Hollers: East Ramapo Central School District and How It Can Save American Education

Mentor – Professor Katherine Lynch
Rockland Community College

Judge : Dr. Aaron Isabelle
SUNY New Paltz

Moderator: Professor Alexandra Kay
Orange County Community College

Readers: Professor Catherine Masetti
Lehigh Carbon Community College

Dr. Stephanie Miller
Lehigh Carbon Community College

Dr. Katherine Sinsabaugh
Orange County Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

International Studies and Globalization

Room RCSE 117; 1:30 to 3:00 p.m.

Mohamed Goma

The “Clash of Civilizations” Reconsidered: Collision Course or Self-Fulfilling Prophecy?

Mentor – Dr. Eugenia Amditis
Westchester Community College

Elijah Gordon

The Community of Mankind: The Importance of the Arts in a Globalizing World

Mentor – Professor Shweta Sen
Montgomery College

Ryan Thron

Bad Sport: The Misplaced Priorities of Sport-Governing Bodies

Mentor –Dr. Nathan Zook
Montgomery College

Judge : Dr. John Fahey
United States Military Academy at West Point

Moderator: Dr. Damon Ely
Orange County Community College

Readers: Professor George Repic
Rockland Community College

Professor Natalia Lubarsky
Rockland Community College

Professor Tina Iraca
Dutchess Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Literature: Philosophy and Religion

Room RCSE 202; 1:30 to 3:00 p.m.

Bethel Sult

Hadewijch's Theology: Love, Feminism, and Reformation
Mentor – Dr. Barbara Hamilton
Mercer County Community College

Nirav Mehta

The Once & Future Kings: A Comparative Study of Kings
Arthur & Rama, & Their Defeats To Love
Mentor – Dr. Christina Devlin
Montgomery College

Daiki Yoshioka

Heroes or Villains: Ontological Boundary Shifting of
Monstrosity and Its Fluidity
Mentor – Professor Rachel Golland
Rockland Community College

Judge : Dr. Vanessa Plumly
SUNY New Paltz

Moderator: Professor Christine Henderson
Orange County Community College

Readers: Professor Marc Bonanni
Lehigh Carbon Community College

Professor David Leight
Reading Area Community College

Professor Erik Grayson
Northampton Community College

Professor Alexandra Kay *[Tie-Breaker Reader]*
Orange County Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Multicultural Studies

Room RCSE 210; 1:30 to 3:00 p.m.

Lori Wysong

A Storied Past: Are Folk Tales Fact or Fiction?
Mentor -Professor Shweta Sen
Montgomery College

Hadar Baranes

Son of Hamas: About the Truth of the Self
Mentor – Professor David Bahr
Borough of Manhattan College

Daniel Hurley

Challenging Routine
Mentor - Dr. Barbara Hamilton
Mercer County Community College

Judge : Dr. Gregory Bynum
SUNY New Paltz

Moderator: Professor Paul Basinski
Orange County Community College

Readers: Professor Debra Condon
Lehigh Carbon Community College

Professor Bethany Zornek
Lehigh Carbon Community College

Dr. Richard Courage
Westchester Community College

Panel Sponsor
SUNY Orange Foundation

SESSION III

Women's and Gender Studies/LGBT

Room RCSE 212; 1:30 to 3:00 p.m.

Sarah Estevez

Asylum Culture: The Effects of the System of Patriarchy and the Cult of Domesticity During the Industrialization and Progressive Eras in America

Mentor – Dr. Denise Francois-Seeney
Northampton Community College

Abigail Wikner

Don't Be Such A Girl: Perpetuating Systems Of Inequality

Mentor - Dr. Nathan Zook
Montgomery College

Kaitlyn Geer

The Fight Against Prejudice: Queer Portrayal on Children's Television

Mentors – Professor Elaine Torda and Laura Morcone
Orange County Community College, SUNY

Judge : Dr. JoAnne Myers
Marist College

Moderator: Professor Stacey Moegenburg
Orange County Community College

Readers: Professor Andrew T. Jacobs
Rockland Community College

Professor Thomas William Meyer
Lehigh Carbon Community College

Professor Eileen MacAvery Kane
Rockland Community College

Professor Judith Buenaflor [*Tie-Breaker Reader*]
Northampton Community College

Panel Sponsor
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POSTERS AND PRESENTERS

3:00 to 4:00 p.m. ~ Orange Hall Gallery

Allied Health and Nursing

Christopher Vickery

Advocating for the Implementation of Music Therapy into Mainstream Medicine

Mentors – Professor Elaine Torda and
Professor Mark Strunsky
Orange County Community College

Biology

Peyton Smith

Overcoming the Stigma: Mixed Breed Shelter Dogs Can Perform Service Too

Mentors - Professor Elaine Torda and
Dr. Jennifer Merriam
Orange County Community College

Communication and Media Studies

Amanda O'Donohue

An Altered Record: The Influence of Photography on Memory

Mentor – Professor Carla Mannix
Reading Area Community College

History

Anthony Lord

Death of the American Car and Car Culture

Mentors – Professor Elaine Torda and
Dr. William Stillman
Orange County Community College

Interdisciplinary Studies

Tzipora Hertz

Jekyll and Hyde: Into the Depths of the Shadow

Mentor – Professor Rachel Golland
Rockland Community College

Literature: Philosophy and Religion

Chadwick Dunefsky

Who Am I? A Modernist Somebody or a Postmodernist Nobody?

Mentor – Professor Shweta Sen
Montgomery College

POSTERS AND PRESENTERS

3:00 to 4:00 p.m. ~ Orange Hall Gallery

Multicultural Studies

Kayleigh Rutkowski

Spiritual Beings: The Medical Practices of the Plains Indians

Mentor – Professor Jodi Greene

Reading Area Community College

Psychology

Sherley Tung

Clinical Case Notes: The Strange Case of Dr. Jekyll and Mr. Hyde

Mentor – Professor Rachel Golland
Rockland Community College

Sociology

Micaela Weinert

A Cracked System: Do Universities Dismiss Sexual Assault Victims?

Mentors – Professor Elaine Torda and Dr. Cory Harris
Orange County Community College

STEM

Nathan Bunch

STereoLithography - ST Graph and 3D Printing

Mentor – Professor John Sheehan
Ulster County Community College

Women's and Gender Studies/LGBT

Marin Williams

Sexual Harassment in the Workplace: Improving on Education and Policy

Mentor – Dr. Christina Devlin
Montgomery College

GROUP POSTER

PRESENTATIONS

3:00 to 4:00 p.m. ~ Orange Hall Gallery

Beowulf Board Game Proposal

Game created by Sherley Tung and Nicole Vanderoef -
Presented by Sherley Tung

Mentor – Professor Rachel Golland
Rockland Community College

Computer Simulation of Energy Cost for Having Fresh Indoor Air during the Winter

Amog Chitnis, Connor J. Kolb, Corey Germann, Juan G. Cruz, Maxwell R. Hazzone, Shila Basu, Talys Drumond, Yauheni Patskevich, Jingrong Huang

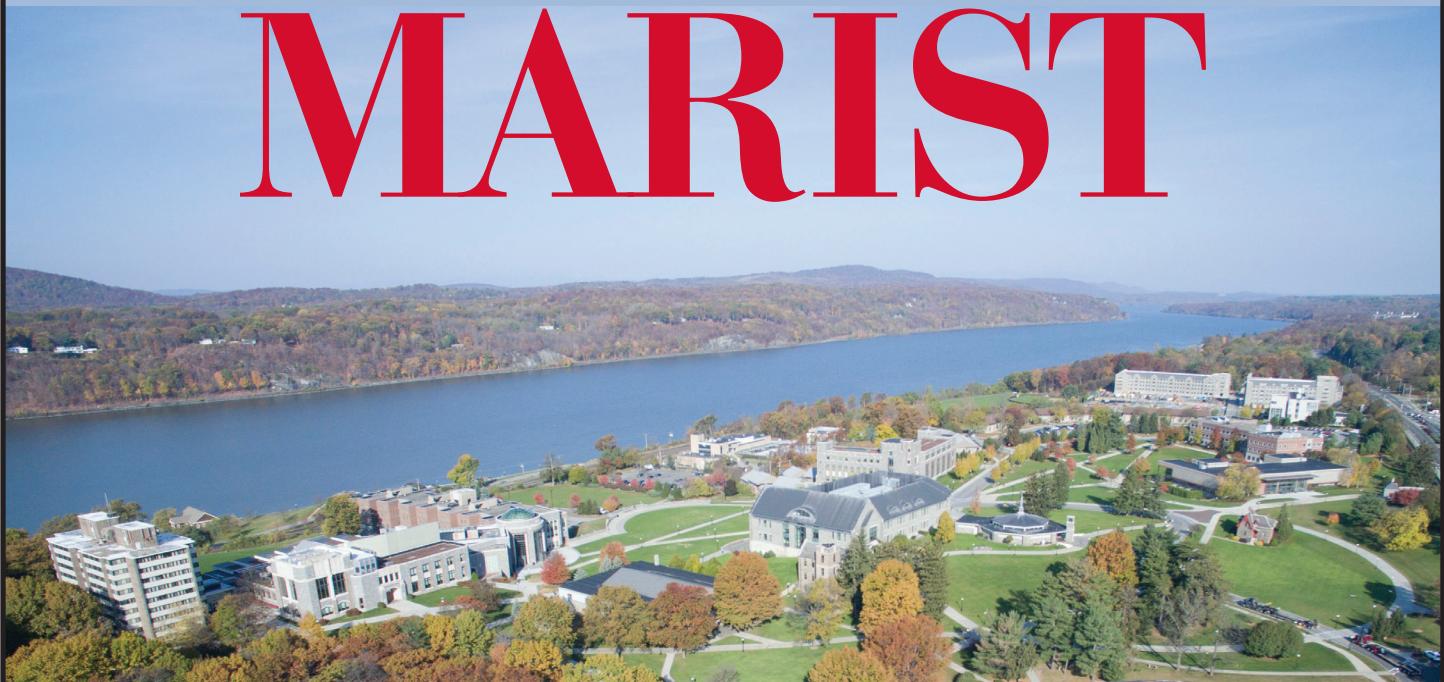
Mentor – Dr. Jingrong Huang, Mercer County Community College

The Use of Bacterial Deposition of CaCO_3 , calcium carbonate, for Increasing the Strength and Resistance to Weathering of Concrete

Suela Restelica and Ha Dao

Mentor – Dr. Timothy MacMahon
Orange County Community College

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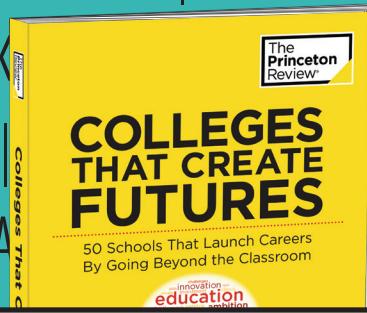
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Administration	Philosophy
Chemistry	Political Science
Chemistry-	Pre-Dental
Biochemistry	Pre-Law
Communication	Pre-Medical
Computer Science*	Pre-Veterinary
Conservation	Psychology
Studies/Restoration	Psychology/Dual Certification
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BS in Information Systems Management
BS in Leadership and Management Studies
BS in Marketing Analytics
BS in Real Estate

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BA in Humanities
BA in Social Sciences

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CELEBRATING THE 25-YEAR HISTORY OF THE BEACON CONFERENCE

The Beacon Conference for student scholars at two-year colleges is an annual event that began in 1993 as a grant-funded AACC/Kellogg Beacon project and is now sponsored by a coalition of junior and community colleges in the mid-Atlantic region. The primary objective of the conference is to showcase the academic achievements of students from two- year college campuses.

Students are invited to submit scholarly work in a wide variety of subject area categories that encompass all areas of study at two-year schools, from the humanities, social sciences, and natural sciences, to technical fields and special areas, such as computer applications and multicultural studies. Three community college faculty with expertise in a particular field read and rank the papers in each category. The authors of the top three essays in each discipline are invited to present their papers at the Beacon Conference hosted by one of the sponsoring colleges on the first Friday of June. Out of three finalists in each subject area, one winner is selected by a judge from a four-year university. Panel winners are chosen on the basis of the quality and originality of research, written work, and oral presentation. Prizes of \$100 are awarded to both authors of the winning papers and their faculty mentors. In addition, the fourth-ranked students in each category are invited to present the highlights of their submissions during the poster session which precedes the Award Ceremony held at the conclusion of the conference day.

The Beacon Conference is a great opportunity for students and faculty of two-year colleges to receive recognition for their outstanding work. The project also fosters a climate of community through (1) the collegiality that develops among colleagues working on a joint project; (2) the intense relationship that grows between students and their faculty mentors; (3) the interactions among students submitting to, presenting at, and attending the conference; (4) the connections between the two-year colleges and neighboring four-year institutions which supplied panel judges; and finally (5) the communal spirit at the conference itself. Typically, 120 to 170 students submit papers for the competition. The level of the papers submitted each year, the quality of the papers presented and, especially, the superiority of the winning papers illustrate that community colleges are the place for high caliber academic accomplishments. 2017 marks the 25th anniversary of the Beacon Conference. SUNY Orange (Orange County Community College) is proud to be the host of this event and to help all of the members of the Beacon Coalition of Community Colleges to celebrate the ongoing achievements of the students.

2017 BEACON CONFERENCE PLANNING COMMITTEE

Michele Iannuzzi Sucich – Director

Samuel Dillon—Co-Director

Stephanie Wish—Co-Director

2017 BEACON CONFERENCE

25TH ANNIVERSARY RECOGNITION CEREMONY

Location: Shepard Center Cafeteria

Introduction: Michele Iannuzzi Sucich, 2017 Beacon Conference Director

Speakers: **The origins of the Beacon Conference**

Dr. Thomas Butler

Beacon Steering Committee

Rockland Community College

The evolution of the Beacon Conference

Dr. Mira Sakrajda

Beacon Steering Committee

Westchester Community College

Perspective from past Beacon Conference student participants

Professor Seamus Gibbons

2001 Beacon Winner

Westchester Community College

Katie Miller Green

2010 Beacon Winner

Orange County Community College

ABOUT THE SPEAKERS

Thomas J. Butler, Ph.D. is a Professor of Science and Science Coordinator of the Rockland Community College Honors Program. He has been a member of the Beacon Steering Committee since 2004 and served as conference co-director in 2007 and 2014.

Dr. Mira Sakrajda holds a Ph.D. in postmodern American literature and has taught at Westchester Community College for 27 years where she is currently a Professor of English, Co-Director of the Honors Program, and Distinguished Chair for English.

Prior to joining Westchester Community College, she was an Exchange Scholar at SUNY Stony Brook, a Visiting Fellow at Princeton University and a University Fellow at Temple University.

Dr. Sakrajda is the recipient of multiple awards, including the SUNY Chancellor's Award for Excellence in Teaching as well as Excellence in Service, and a Congressional Medallion Award for Education. She has been involved in the Beacon Conference for the past 25 years, co-directed the event 3 times (in 1997, 2002, and 2012) and, to date, mentored 49 Beacon presenters.

Seamus Gibbons is an Assistant Professor in the Department of Composition and Literature at Bergen Community college, where he has worked since 2009. He has served as the Department Coordinator for the past three years, and this year also became the Director of the Judith K. Winn School of Honors. His area of interest is in creative writing, and has short stories published in America and his native Ireland. He is a graduate of Westchester Community college, SUNY Purchase and Rivier College in NH. He is also a past winner of the Beacon.

Katie Miller Green participated in the 2010 Beacon Conference while attending SUNY Orange, went on to finish her Bachelor's and Master's degrees at Ithaca College, and has spent the past four years teaching in the Pine Bush Central School District.

PAST BEACON WINNERS

1993

Suzanne Arroyo	Brookdale Community College
Sarah Butcux	Rockland Community College
Patricia Gerstle Cheney	Bucks County Community College
Kimberely Moragne El	Catonsville Community College
Marissa Foster	Rockland Community College
Lucy Ann Hurston	Manchester Community College
Susanna Kirk	Rockland Community College
John Joseph Maher	Rockland Community College
Serge Mathurin	Brookdale Community College
Tali Marcus	Bergen Community College
David McClelland	Brookdale Community College
Jennifer L. Maxwell	Middlesex Community College
Elizabeth McGaughan	Schenectady County Community College
Tamim Quam	Kingsborough Community College
Heather Wood	Sullivan Community College

1994

Patricia Bentivegna	Bergen Community College
Baruch Cohen	Rockland Community College
Joseph Darcy	Rockland Community College
Andrew Darcy-Martin	Sullivan County Community College
Robert M. DeHart	Northampton Community College
Michele Fox	Harford Community College
Carol Ann Freeman	Orange County Community College
Florin Ion Firimita	Naugatuck Valley Comm./Technical College
Lynnora K. Geoghegan	Bergen Community College
Karin Hallauer	Nassau Community College
Gwen Krokar	Middlesex Community College
Janet A. Lofaro	Bergen Community College
James Michael Monroe	Rockland Community College
Jillian Marie Silveira	Harford Community College
Holly Shiffman	Rockland Community College
Tricia Smith Woodhead	Sussex County Community College

1995

Dale Bellisfield	Bergen Community College
Colleen V. Biffen	Delaware Technical and Community College
Heather J. Campbell	Westchester Community College
Justin Daniels	Dutchess Community College
Wendy Harris	Middlesex Community Technical College

Frank Hilsdon	Middlesex Community Technical College
Richard Honeywell	Jefferson County Community College
Perry Jones	Bergen Community College
Carol MacAllister	Brookdale Community College
Julie M. Milne	Oakton Community College
Kiilu Mulumba	Hudson Community College
Brian J. O'Donnell	Westchester Community College
Phyllis Porter	Frederick Community College
Eric Rosenberg	Bergen Community College
Constance Wamhoff	Harford Community College
Kaye A. Womax	Delaware Technical and Community College

1996

Ken Armstrong	Sullivan County Community College
Patricia D'Arienzo	Westchester Community College
Brigitte Davidson-Barham	Harford Community College
Jean Grey	Bergen Community College
Michael Hegedus	Union County College
Jim Holdridge	Westchester Community College
Mona Minor	Greenfield Community College
Teressa Molesky	Harford Community College
Carole Rockey	Harford Community College
Thomas Santanasto	Northampton Community College
Lisa Satterwhite	Prince George's Community College
Carl Soffler	Rockland Community College
Evelyn Vaughn	Harford Community College

1997

Emily Captain	DeVry Institute
Rachel Craven	Harford Community College
Patricia D'Arienzo	Westchester Community College
Lisa Denig	Westchester Community College
Amir Reza Farrokhnia	Bergen Community College
Tracy Ann Franks	Bergen Community College
Heather Hartz	Lehigh Carbon Community College
William Henehan	Rockland Community College
Jennifer Jacoby	Northampton Community College
George Musa	Westchester Community College
Mary Ring	Westchester Community College
Thomas Santanasto	Northampton Community College
Darnell Simon	Essex County College
Carl Soffler	Rockland Community College
Elissa Young	Union County College

1999

Coleen R. Bevington	Brookdale Community College
Dennis Covello	Ulster Community College
Lisa Denig	Westchester Community College
Maggie Diggory	Union County College
Tracy M. Dooley	Harford Community College
Wendy Hayden	Bergen Community College
Sarah Hijazi	Westchester Community College
Donald Jackson	Northampton Community College
Danielle Lilley	Harford Community College
Todd Marsh	Westchester Community College
Gail Meekins	Delaware Technical and Community College
Maraid J. Mukaida	Bergen Community College
Dami Noah	Rockland Community College
Debra Pietruszka	Rockland Community College
Ashley Saint-Fleur	Rockland Community College
Craig Stevenson	Bronx Community College

2000

Abe Alexander	Rockland Community College
Sarah E. Angell	Dutchess Community College
Jay Ciaccio	Westchester Community College
Kevin Collins	Rockland Community College
Tiana A. Cornelius	Rockland Community College
Jennifer Deems	Harford Community College
Lisa Denig	Westchester Community College
Leora Kaufman	Rockland Community College
Eric J. Kenny	Northampton Community College
Lori Loffredo	Westchester Community College
Patricia A. Martin	Ulster County Community College
Sara Saffir	Rockland Community College
Peter A. Sands	Reading Area Community College
Karen Hewes Suber	Lehigh Carbon Community College
Stephanie Surch	Northampton Community College
Shari Ziegelstein	Rockland Community College

2001

Scott Abel	Rockland Community College
Kristen Cornell	Lehigh Carbon Community College
Dianne Lea Devlin Gasiewski	Northampton Community College
Aidan Gibbons	Westchester Community College
Daniel Hurtado	Montgomery College
Jana Janco	Rockland Community College

Tina Magrabi	Bergen Community College
Romy Mariano	Northampton Community College
Jessica McCaffrey	Dutchess Community College
Howie Miller	Lehigh Carbon Community College
Kirsten Ostiguy	Westchester Community College
Thomas Sawyer	Brookdale Community College
Alan Silverman	Rockland Community College
Albert A. Smith	Northampton Community College
Angela Spagna	Harford Community College
Donna Suchomelly	Reading Area Community College

2002

Samuel Bellaviti	Rockland Community College
Daniel Bogan	Bergen Community College
Joanna Caccavo	Rockland Community College
Rory Doyle	Westchester Community College
Allison Jones	Westchester Community College
David King	Montgomery College
Rebecca Miller	Frederick Community College
Carol Robinson	Westchester Community College
Joseph A. Ryan	Dutchess Community College
Thomas Sawyer	Brookdale Community College
Cris Swanson	Reading Area Community College
Lori Tse	Dutchess Community College
Taffy Lee Williams	Westchester Community College
Kellie Yaskanich	Sullivan County Community College
Donna Zeman	Rockland Community College

2003

Elizabeth Baker	Rockland Community College
Joanna Caccavo	Rockland Community College
Athanasiros Cakiades	Bergen Community College
Tyler M. Carbone	Rockland Community College
Stephanie Evans	Montgomery College
Stephen F. Faherty	Montgomery College
Christian Fils-Aime	Westchester Community College
Brian Gil	Erie Community College
David King	Montgomery College
Dennis Albert Lindsell, Jr.	Rockland Community College
Lu Ann Nash	Erie Community College
Heather Pisani	Dutchess Community College
Nancy L Sackette	Northampton Community College
Scott Schneider	Ocean Community College

MaryAnne E. Silverstrim
Rachel M. Smith
Sandra Taurisano

Sullivan Community College
Northampton Community College
Westchester Community College

2004

Tyler Carbone
Jessica Chadwick
Christopher Day
Nara Gomes
Kelsey Henning
Kate Hoydis
Jill A. Marrero
Erin Palazzolo
John F. Richards
Quesia Damaris Sousa
Sandra Taurisano
Sergey B. Zaets

Rockland Community College
Erie Community College
Rockland Community College
Westchester Community College
Rockland Community College
Ocean Community College
Sullivan Community College
Westchester Community College
Ocean Community College
Montgomery College
Westchester Community College
Bergen Community College

2005

Gordon Adams
Shariffa Ali
Brent Bridges
Melvina Evereklian
Heidi Feichtinger
Susanna Fix
Jave Galt-Miller
Roy Gordon
Erin Jones
Thomas Kern
Mona Lee
Jill Manell
Alison Niska
Evette Olszyk
Adrienne Reed
Easter Wood

Dutchess Community College
Manhattan Community College
Montgomery College
Montgomery-Rockville College
Rockland Community College
Northern Virginia Community
Ocean Community College
Montgomery-Germantown College
Montgomery-Rockville College
Brookdale Community College
Montgomery-Rockville Community College
Bergen Community College
Montgomery-Rockville Community College
Northampton Community College
Reading Community college
Bronx Community College

2006

Irena Antic
Denise Avolio
Roxana Bartolomé
Christian Herasimtschuk
Firas Ido
Timothy Kirkland

Montgomery College
Westchester Community College
Rockland Community College
Dutchess Community College
Lehigh Carbon Community College
Reading Community college

Tamar Nebel	Rockland Community College
Evette Olszyk	Northampton Community College
Kirsten Porter	Northern Virginia Community College
Alexander S. Radus	Northampton Community College
Rebecca Reich	Montgomery College
Magdalene San Millan	Dutchess Community College
Christine Stetler	Dutchess Community College
Kathleen Stritmater	Rockland Community College
Fatemeh Tavakkoli	Montgomery College
Jennifer C. Whipple	Prince George's Community College
Kevin Wilkerson	Montgomery College
Joshua A. Zamfino	Westchester Community College

2007

Roxana Bartolomé	Rockland Community College
Ori Bensimhon	Rockland Community College
Kathy Bui	Montgomery College
Ryan Catala	Westchester Community College
Colleen Chisolm	Rockland Community College
Catherine English	Erie Community College
Ivy Lynn Fox	Northampton Community College
Jacob Gagner	Erie Community College
Cathy Guptill	Northampton Community College
Catherine Kelly	Montgomery College
Carli McGoff	Montgomery College
Igor Nikolskiy	Rockland Community College
Martha Pena	Montgomery College
Hannah Rice	Rockland Community College
Hilda Rizzo-Busack	Montgomery College
Josephine Ta	Montgomery College
Jeannine Wightman	Reading Area Community College

2008

Christian E. Barrera	Montgomery College
Sasha Fink	Lehigh Carbon Community College
Sharon R. George	Westchester Community College
Maya Goer-Palenzuela	Dutchess Community College
Candice M. Henderson	Lehigh Carbon Community College
Jack D. Hildebrand	Bergen Community College
James Landrum	Westchester Community College
Daniel LaSalle	Rockland Community College
Daniel C. Mays	Montgomery College
Ivan Melyakov	Montgomery College

Martha Molinini	Ocean County Community College
J. Shepard Ramsey	Rockland Community College
Stephen Sakai	Montgomery College
John Sherman	Westchester Community College
Jennifer Sylvestri	Westchester Community College
Jessica Weiner	Rockland Community College

2009

Brian Barrett	Montgomery College
Holly Berardi	Montgomery College
Justyna Broda	Bergen Community College
John E. Daniel	Montgomery College
Angelene Elliott	Borough of Manhattan Community College
Dawn Gieringer	Reading Area Community College
Claire Kalala	Montgomery College
Meg Lambert	Montgomery College
William Law	North Virginia Community College
Samantha Elise Moorman	Montgomery College
Thomas Quinn	Orange County Community College
John Sherman	Westchester Community College
Emily Thron	Montgomery College

2010

Meinkeng Stephannie Acha-Morfaw	Montgomery College
Jon W. Carlson	Reading Area Community College
Caterina DeGaetano	Dutchess Community College
Robin Harris	Montgomery College
Claire Kalala	Montgomery College
Dawn M. Krautter	Northampton Community College
Hannah Long	Lehigh Carbon Community College
Carla Majczan	Northampton Community College
Kathryn Marie Miller	Orange County Community College
Marilyn Miller	Reading Area Community College
Ana Palomino	Montgomery College
Yudi Pardo	Rockland Community College
Whitley Richards	Montgomery College
Alexandra Smith	Montgomery College
Samuel Strong	Lehigh Carbon Community College
Heather Tremper	Northampton Community College
Melissa Williamson	Montgomery College

2011

Jon Carlson	Reading Community College
Sarah Chan	Montgomery College
Rakesh Chopde	Montgomery College
Antonio Concolino	Westchester Community College
Laura Duran	Rockland Community College
Erica Espinosa	Montgomery College
Samuel Han	Borough of Manhattan Community College
Adrianne Kirk	Orange County Community College
Hannah Knowlton	Borough of Manhattan Community College
Diane Lameira	Montgomery College
Ryan McGrail	Lehigh Carbon Community College
Joselida Mercado	Bergen Community College
Siomara Parada	Montgomery College
Theresa Price	Montgomery College
Chris Saffran	Rockland Community College
Jusline Sayegh	Lehigh Carbon Community College
Martina Thorne	Montgomery College
David Trabucco	Erie Community College
Judson Williams	Montgomery College

2012

Silvia Argueta	Montgomery College
Stacy Beaty	Northampton Community College
Karen Breslin	Rockland Community College
Alison Conrad	Orange County Community College
Michele Granitz	Reading Area Community College
Robert Harris	Montgomery College
Viktoria Ivanova	Montgomery College
Angelica Klein	Borough of Manhattan Community College
Brogan Murphy	Montgomery College
Cristiana Lombardo	Westchester Community College
Alexis G. Martinez	Montgomery College
Sairam Nagulapalli	Montgomery College
Melissa Puskar	Northampton Community College
Ana Sicilia	Bergen Community College
Nicolette St. Lawrence	Westchester Community College
Leah Sweeney	Orange County Community College
Mariame Sylla	Montgomery College
Yasuyo Tatebe	Rockland Community College
Fiorella Villar	Westchester Community College
Megan G. Willmes	Northern Virginia Community College

2013

Michele Andrews	Lehigh Carbon Community College
Lynn Bonde	Montgomery College
Laura Calix	Bergen Community College
Caitlyn Aricelis Colon	Northampton Community College
Rachel Czarniak	Montgomery College
Kristen Emelio	Montgomery College
Gillian K. Fitzgerald	Bergen Community College
Erin Hazen	Bergen Community College
Catherine Hoover	Montgomery College
Ngan Le	Montgomery College
Rachel B. Lee	Reading Area Community College
Caitlyn Maczka	Montgomery College
Jacqueline Parsons	Orange County Community College
Loide D. Polli	Westchester Community College
Siobhan Summers	Montgomery College
Bandaranayake Weerasinghe	Montgomery College
Victoria Winch	Montgomery College
Jennifer Yeboah	Montgomery College

2014

Catherine Baker	Montgomery College
Caitlin Brown	Lehigh Carbon Community College
Nathan Christie	Lehigh Carbon Community College
Joanna Dykeman	Orange County Community College
Madonna Enwe	Montgomery College
Sheila Frees	Reading Area Community College
Rachel Lee	Reading Area Community College
Wellington Mackey	Westchester Community College
Humoyun Musaev	Borough of Manhattan Community College
Anastasia Sidorenkova	Borough of Manhattan Community College
Vivek Sood	Orange County Community College
Yael Tsitohay	Montgomery College
Diana Wu	Montgomery College
Janelle Zimmerman	Reading Area Community College

2015

Sydney Axelrod	Montgomery College
Emily Christian	Montgomery College
Ryan Dupont	Lehigh Carbon Community College
Kristy Garcia	Borough of Manhattan Community College
Nicole Jackson	Montgomery College
Sarah Batool Khan	Northampton Community College

Juliana Nitis	Westchester Community college
Jeremy Rosen	Rockland Community College
Rima Sakhawala	Montgomery College
Lianhua Shen	Borough of Manhattan Community College
Rasmi Shrestha	Montgomery College
Ya Rue Xie	Borough of Manhattan Community College

2016

Elvia M. Asencio	Bergen Community College
Nada Babaa	Montgomery College
Kevin Birungi	Montgomery College
Kathryn Colombo	Bergen Community College
Alberto Chamorro	Bergen Community College
Yechan Choi	Montgomery College
Amie Fye	Montgomery College
Daniela Rebolledo Fuentes	Montgomery College
Christian Y. Gbewordo	Montgomery College
Sana Azizah Khan	Bergen Community College
Olivia S. Mata	Westchester Community College
Taylor Natiello	Northampton Community College
Connor Rhodes	Orange County Community College
Michael Schlag	Orange County Community College
Shannon Sander	Orange County Community College
Daneris Santiago	Bergen Community College
Charlotte Grace Stoliker	Montgomery College
Egnatia Vaso	Bergen Community College
Kateryna Zhdanova	Borough of Manhattan Community College
Janelle M. Zimmerman	Reading Area Community College

Disclaimer:

In the compilation of this Proceedings publication, every effort was made to maintain the formatting for each winning paper as closely to the original paper as possible. Some slight alignment differences may be evident, but papers should be nearly identical to what was submitted to the 2017 Beacon Conference.

Nicholas Belsito

Multiple Sclerosis and Autologous Hematopoietic Stem Cell Transplantation Treatment

Orange County Community College

Panel: Allied Health & Nursing

Mentor: Dr. Michele Iannuzzi Sucich

Abstract

This paper explains the devastating effects multiple sclerosis has on the central nervous system. There are different levels of severity with this autoimmune disease that has no known cure, and the most aggressive forms always end in fatality. Current therapies and medications for multiple sclerosis only help fend off another attack, or relapse, and help return normal body function after a relapse. Treatments for the more extreme, debilitating forms of multiple sclerosis, such as Primary-Progressive Multiple Sclerosis, are nonexistent. However, new treatments for all forms of multiple sclerosis are on the rise. One of the more controversial treatments is autologous hematopoietic stem cell transplantation. Although it can be very successful, the side effects may be extreme.

Multiple Sclerosis (MS) is an autoimmune disease in which immune cells attack the myelin sheath covering of axons in the central nervous system (CNS). The etiology of MS is not definitive, but a spectrum of factors can contribute to disease onset. Regardless of the cause, the outcome is always the same; an inflammatory response causes a leak in the blood-brain-barrier (BBB) and demyelination of the neurons in the CNS takes place (Luzio, 2016). Currently, there are only a few therapies and medications in clinical trials being deployed to combat the more aggressive forms of MS, and to hopefully find a cure for all forms of MS. One of the latest breakthrough treatments for patients with MS is autologous hematopoietic stem cell transplantation (HSCT). While promising in clinical trials, the results have been mixed, as there have been adverse side effects reported. Despite the risks involved, patients with MS are at least afforded an opportunity to survive by attempting this treatment and, given the lack of alternative therapies, HSCT is a viable option for patients with progressing MS.

In order to treat MS, it is important to understand what is known and what is unknown. Understanding what is unknown about this disease can help guide experiments to better understand and treat the problem. Although there have been many recent discoveries, there are still many aspects of MS that are not understood.

In healthy individuals, there are autoreactive myelin-specific T cells that are kept in check by regulatory T cells; patients with MS do not have this protection from the regulatory T cells and the activation of myelin-specific T cells causes the events leading to MS to occur. Unfortunately, what causes the myelin-specific T cells to activate is not completely understood. It is hypothesized that MS occurs in people who have a genetic tendency to MS that come in contact with an environmental factor, such as a viral infection or lack of sun exposure, which leads to disease onset (Compston, 2002). Myelin-specific T cells are first activated in the

peripheral nervous system (PNS) before the activated T cells can enter into the CNS. Myelin basic protein (MBP) is a component of myelin found both in the PNS and CNS. Studies have shown that MBP is found within all lymphoid tissue where MBP-specific T cells can detect it. The major site of MBP-specific T cell activation is in the CNS-draining cervical lymph nodes. It is unknown what causes the antigen-presenting cells (APCs) in the peripheral nervous system to present myelin to the naïve T cells, but it is hypothesized that antigen presentation occurs because of molecular mimicry (Goverman, 2009); (Compston, 2002). Activated myelin-specific T cells will enter two distinct regions of the brain, depending on the route they take from the PNS. T cells that cross the blood-CSF barrier enter into the subarachnoid space (SAS). However, T cells that pass through the blood-brain-barrier (BBB) will enter into the perivascular space where most of the demyelination will occur. It is believed that T cells enter through the blood-CSF space first because, without inflammation, the T cells cannot adhere to the BBB, thus not allowing the immune cells to pass into the perivascular space. The SAS expresses adhesion molecules at all times, so immune surveillance can always take place there (Goverman, 2009). CD4 T cells, now inside the SAS, are reactivated by MHC Class II antigen presenting cells (APCs), resulting in T cell proliferation, large T cell aggregation, and an inflammatory response. The inflammation in the SAS activates perivascular endothelial cells, causing them to express the adhesion molecules necessary for T cell migration through the BBB. Once inside the perivascular space, myelin-specific T cells re-encounter the myelin antigen and activate microglia, the CNS's macrophage and main immune system force. Activated microglia then, in-turn, express class II molecules, which re-present antigen to T cells, activating them and setting up a pro-inflammatory loop. Toxic inflammatory mediators are released by cells inside the CNS causing sustained break down of the BBB and injury to the axons and glia (Goverman, 2009).

Inside the CNS, macrophages and dendritic cells play an important role in the pathogenesis of MS. This was discovered by depleting these cells and observing a remission in the patients. Once the naïve T cells that target myelin enter the inflamed brain tissue, they are activated by myeloid dendritic cells. Both dendritic cells and macrophages reactivate T cells once the T cells are inside the CNS. Microglia cells and astrocytes comprise the basement membrane and play a large part in sustaining the inflammation process. It has been found that the microglial cells, once activated, support T cell effector function, but also cause T cell death. This suggests that microglial cells cause T cells to produce inflammatory mediators just before they force the T cell to undergo apoptosis. Astroglial cells have been found to enhance the inflammatory response by producing chemokines and cytokines. Cytokines are produced by many cells inside the CNS and play a major part in the inflammatory process. They facilitate the immune response to eliminate potential pathogens inside the inflamed tissue, while suppressing the destructive aspects of the immune response (Goverman, 2009).

The main targets of the self-attacking immune cells are the myelin proteins found in myelin sheathes surrounding the axons. Both of these cells have a vital role in normal functioning nervous systems. Oligodendrocytes make up the myelin sheath of up to 40 neighboring nerve axons. The myelin sheath surrounds the axon, acting as an insulator. This allows for optimal conduction of an action potential between myelinated nerves in the CNS. Destruction of the oligodendrocytes and myelin sheathes disrupt the conduction of an action potential through the axons inside the CNS (Lassmann, 2014).

Lesions on the brain, known as scleroses, are scar tissue formed after damage to the myelin takes place; they show in which regions of the brain demyelination has occurred and is continuing to occur. The most noteworthy lesions found on a MRI scan are the confluent subpial

cortical lesions which are only formed in multiple sclerosis patients, separating them from other inflammatory demyelinating diseases. The symptoms of a MS patient reflect the area of the brain that is inflamed and has undergone demyelination. Lesions of the brainstem and cerebellar pathways are typically linked with disruption to coordinated movements of the eyes, limbs and axial muscles. The spinal cord is usually affected and leads to disruption in motor, sensory and autonomic functions. Both brain and spinal cord are impacted by the demyelination that occurs in MS (Lassmann, 2014).

Once the myelin sheath is destroyed, partially demyelinated axons will conduct the action potential at reduced speeds. Completely demyelinated axons will discharge their impulses spontaneously and show increased mechanical sensitivity. This could explain why MS patients perceive flashes of light on eye movement and feel electrical sensations running down their spine or limbs on neck flexion, known as Lhermitte's symptoms. Insulation from the myelin sheathes help regulate over-heating of the axons. Without the myelination, the axons cannot sustain a rise in temperature, and conduction fails. This explains why symptoms arise in MS patients after working out or taking a hot bath, known as Uhthoff's phenomena. Neighboring demyelinated axons can encounter ephaptic transmission, or cross talk, which can result in the paroxysmal symptoms seen in MS patients, including trigeminal neuralgia, ataxia and dysarthria (Compston, 2002).

There are several phenotypes of MS and each type has a different rate of progression for neurodegeneration that impacts the course of treatment the patient will undergo. For most patients with MS, the initial disease phase is termed relapsing-remitting multiple sclerosis (RRMS). Patients with RRMS will experience periods of neurological degeneration, or relapses, followed by remissions. During remission, complete resolution of neurological damage can

occur, but in 40% of attacks, mild symptoms or signs may persist. An estimated 40-45% of patients with RRMS will undergo a transitional phase into secondary-progressive multiple sclerosis (SPMS) after 10 years. This disease changes from an inflammatory process seen in RRMS into a steadily progressive phase with nerve damage or loss. The most aggressive form of MS is primary-progressive multiple sclerosis (PPMS). Unlike SPMS, PPMS exhibits a progressive demyelination from disease onset, without relapses or remission, and occurs in 15-20% of patients with MS. Neurodegeneration in patients with PPMS is rapid and nearly always ends in fatality (Macdonnell, 2011).

Although there is no known cure for MS, there are a few therapies for maintaining RRMS. For SPMS, there are very few medications available and for PPMS there are none. The therapies in place for RRMS and SPMS try to return function after a relapse, advert another attack from occurring, and prevent further disability. The medication a MS patient receives depends on the aggressiveness of the MS and the response to the medication. As with all medications, these treatment plans can and will have adverse side effects. During an attack, high doses of intravenous corticosteroids can be administered, which will help reduce short-term symptoms but have no effect in the long-term disease course. First-line medications are interferons and glatiramer acetate, which reduce patient relapse rates by approximately 30% (Macdonnell, 2011). If the patient does not respond to first-line treatments, Natalizumab will be administered. This medication has a larger reduction in relapse rate, but its adverse side effects causes it to be a second-line medication (Compston, 2002). Third-line medication, Mitoxontrone, has severe side effects and will only be administered to patients with aggressive forms of MS or if the patient is not responding to any of the other medications (Compston, 2002). Mitoxontrone is the only medication available for maintaining SPMS (Compston, 2002).

There currently are treatments in clinical trial for combating MS, one of which is autologous hematopoietic stem cell transplantation. Although this treatment has a notable success rate, the extreme side effects that can occur cause it to be a controversial treatment plan. The basic process behind autologous HSCT is to take a graft of the patient's hematopoietic stem cells (HSCs) from the bone marrow and store it temporarily. Then the patient undergoes high-dose immunosuppressive therapy (HDIT), such as chemotherapy and biologics, to destroy the self-attacking immune system. Once the immune system is depleted, the purified HSC graft is transplanted back into the patient, allowing the immune system to reconstruct. This 'reboot' eliminates the immune system's programming to attack the myelin protein. The main objective of autologous HSCT is to reduce inflammation and progression of the disease for a prolonged period of time. Autologous HSCT not only acts as an immunosuppressant, but could potentially reset the immune system entirely (Park, 2015); (Atkins, 2012). Administering HDIT early in the course of MS reduces the inflammation before irreversible neurological damage occurs. By performing autologous HSCT alongside HDIT, not only will the inflammation associated with MS be stopped and neurological function be saved, but hematopoietic and immune activity after HDIT will be more efficient as well. Protecting the hematopoietic activity reduces the time it takes to increase the patient's blood cell count. Re-implanting the autologous graft generates a new and diverse T cell immune response, a mechanism that could explain why there is a greater remission of inflammation compared to administering HDIT alone (Atkins, 2012).

Autologous HSCT is a series of procedures and customizing these steps can influence the outcome of the treatment. First, a graft containing HSCs must be obtained from the patient. These cells can either be extracted using bone marrow biopsy, or they can be brought out of the bone marrow into the blood stream through the use of drugs. Once inside the circulatory system,

the HSCs are harvested using leukopheresis. Causing movement of HSCs from the bone marrow into the blood stream may be a better option because of the pain experienced extracting the stem cells from the bone marrow directly. Not only is the second option less invasive, but the drugs given to cause the HSCs to enter the blood stream can suppress the immune system, which helps prevent MS relapses until the graft is transplanted. Once the graft has been taken, it is cryopreserved and stored until the time of transplantation (Atkins, 2012).

After the graft is taken, the patient must undergo treatment with some combination of biological agents, chemotherapy, or radiation to deplete their immune system, destroying the self-attacking immune cells with it. This must be done before the graft can be transplanted back into the patient. Once the chemotherapy agents are eliminated from the body, the graft is transplanted back into the patient through the blood stream. The HSC return to the bone marrow where they proliferate and eventually mature, thus restoring immune function (Atkins, 2012).

After the HSCT, the patient is nursed through the toxicities expected from the conditioning regimen they received before the transplant. By increasing the dose of the conditioning regimen, a greater immune suppression will result and could potentially destroy the patient's autoreactive immune system altogether. Past clinical trials have shown that a less intense conditioning regimen has a greater risk for relapse in the patient. However, increasing dose intensity causes more toxicities to the patient, which leads to a difficult recovery period (Atkins, 2012).

Clinical trials for autologous HSCT have been recorded since the 1990s, and over time the mortality rate for the participants has dropped significantly. During the first decade of testing, the treatment-related mortality rate was between 4% and 20%. However, between 2000 and 2007, the mortality rate dropped to as low as 1.3%, a significant drop from when trials first

started (Atkins, 2012). The initial high mortality rate was attributed to how the participants were chosen for the trial, the type of HDIT administered, and the supportive care given after the transplantation was completed. Substantial reductions in the mortality rate resulted when changes were made. Initially, patients with SPMS, PPMS, and advanced neurological disorders were chosen to take part in autologous HSCT trials, but it was observed that these patients had poor outcomes compared to patients with less disabling forms of MS, such as RRMS. Studies showed that there was a better outcome for patients under the age of 40 who were diagnosed with MS prior to five years before the trial began, compared to older patients with long-standing neurological damage. This was because younger and more recently diagnosed patients have active inflammation of the brain tissue and would benefit from the autologous HSCT (Atkins, 2012); (Pasquini, 2010).

High-Dose Immunosuppressive Therapy and Autologous Hematopoietic Cell Transplantation for Relapsing-Remitting Multiple Sclerosis (HALT-MS) was a phase II clinical trial that started in August 24, 2006 and ended in August 28, 2011. Dr. Richard A. Nash and his team performed this experiment to see if decreasing inflammation would improve remission rates and decrease neurological symptoms early on in patients with RRMS. In the clinical trial 25 patients were chosen based on a specific-criteria. Factors included age, disability, and time since diagnosis, all of which contributed to the diversity of subjects. Specifically, the patients were between the ages of 18 and 60 and had been diagnosed with RRMS less than 15 years prior to the study. No other therapies had been successful in treating their condition. To establish a baseline for each patient, three tests were conducted; Expanded Disability Status Scale (EDSS), MS Functional Composite (MSFC), and the 29-Item Multiple Sclerosis Impact Scale (MSIS-29). The EDSS shows the level of disability a person has, scaling from a 0, normal neurological

exam, to a 10, death due to MS. Participants scored between 3.0 to 5.5, indicating a range of moderate disability up to increasing limitation in ability to walk. The median EDSS score of the clinical trial was 4.5. The MSFC is three separate tests to evaluate the functional capacity of the participants. First, they would take the time 25-foot walk, which tests the participant's mobility and leg function. Second, the subjects would take the 9-hole peg test, which tests their upper extremity function. Finally, they would take the paced auditory serial addition test, which would test the cognitive ability of the participants. These tests create an overall evaluation of the participant's ability to function with MS. At the baseline, the median was a -0.2. The patients chosen for this trial were diverse, which helped show results from a variety of aspects (Nash, 2015).

One of the key parts of the HSCT procedure is the process taken to extract the stem cells and the HDIT given to the participants after extraction. In the HALT-MS trial, the participants peripheral blood stem cells were mobilized with filgrastim and collected by leukapheresis. CD34+ immune cells were selected from the graft because of their high self-renewal capacity, and were then cryopreserved. In order to prevent MS relapse in the participants, prednisone was given to the patients one day prior to receiving filgrastim and every day after for the next ten days. Six days before the transplantation, participants were administered High-Dose BEAM Chemotherapy. This part of the procedure wiped out the self-attacking immune cells. Once HDIT was over, the CD34+ cell graft was thawed out and infused into the patient. Supportive care was given to the patients, which is important for the next few weeks after the procedure is completed. Intensive supportive care lead to fewer adverse events from the HDIT and HSCT (Nash, 2015).

HALT-MS used the National Cancer Institute Common Terminology Criteria for Adverse Events, Version 3.0 to evaluate the side effects participants had during and after the clinical trial. Only grade 3 and grade 4 adverse events (AEs) were recorded; these grades represent severe adverse event and life-threatening or disabling adverse events (Nash, 2016). From the time prior to mobilization up to three years after the procedure, of the 25 participants in the trial, 24 subjects had 130 grade 3 AEs and 25 subjects had 94 grade 4 AEs. Before transplantation, one participant developed a pulmonary embolus and could no longer participate. Most of the AEs participants experienced involved the blood and digestive system, which was expected and reversible after HDIT. Two patients developed grade 5 AEs and died, as a result. One death occurred two and half years after transplantation; the participants condition had been stable, but a year and half after the procedure, neurological function began to diminish and ended in fatality. The other death resulted from exacerbation of pre-existing asthma. Treatment failure was defined as death from any cause or MS disease activity or disability defined by any of the following: change in EDSS score of more than 0.5 points, relapse, and two or more independent MS disease related lesions on brain MRI performed on year after HSCT. Clinical evaluations were done at 6 months and 12 months after the procedure, then once a year for the next 5 years. Participants were contacted by telephone every 3 months in between yearly visits. If there were any neurological concerns, participants would return for an evaluation. After five years, treatment failure occurred in seven participants. Three years after transplantation, there was a 90.9% EDSS progression-free survival, 86.3% clinical relapse-free survival and a 100% MRI-event free survival. Not only was there a high rate for EDSS progression free survival, but a regression of disability in patients was shown. The median of EDSS was lowered by 0.5. MSFC

improved as well, moving up from the baseline by 0.15 (Nash, 2016). This shows that HSCT can reduce the extent of disability patients already had.

I believe that HSCT is beneficial for patients with active, progressing MS when other forms of treatment are not helping. The lower mortality rate makes this form of treatment even more acceptable. Current treatments only help short term and suppress the immune system, but autologous HSCT can potentially restore immune function and prolong the remission periods. Unfortunately, autologous HSCT is still in early clinical trials and in order to understand its full capabilities several years of long-term follow-ups from patients undergoing HSCT are needed. Immunological studies using patient samples and MRI studies to assess demyelination and re-myelination would also be needed to fully understand the impact of autologous HSCT on MS patients. If further clinical trials can demonstrate significant benefits to the subset of patients with RRMS, then autologous HSCT may become more widely accepted and, consequently, benefit patients with other types of MS.

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Melissa Rojas
Gorillas' Cognitive and Language Intelligence
Montgomery College
Panel: Anthropology
Mentor: Professor Shweta Sen

Gorillas are animals that have great capabilities when it comes to cognitive intelligence. When compared to other animals, gorillas show to have a higher level of intelligence. According to the Max Planck Institute of Evolutionary Anthropology, when compared to humans, gorillas' intellect can match that of a two-and-a-half-year-old toddler in numerical and spatial reasoning. Research has also proven gorillas' language abilities. In the essay, *Animal "Language" And Human Language*, Charles Hockett explains that even though what differentiates humans from animals is the power of speech, it does not mean it is the only species that can "carry on communication" (32). Language is a part of communication. Just because an animal has no language, it does not prove it cannot communicate, even in a sophisticated way. Animals like gorillas might lack the capability of language as we understand it due to the nonessential need for it. One research has proved that when given the opportunity to learn, a gorilla was able to learn an artificial language such as sign language. It is called an artificial language because it is not a language that comes naturally to gorillas. Many studies that test different skills have tested apes, monkeys, and even prosimians. One study on skills of object permanence, which is the understanding that objects continue to exist even when they cannot be observed, concluded that primates might not be able to complete difficult stages of object permanence due to the fact that those specific skills are simply not needed in foraging situations (Tomasello 55). A study like this demonstrates that some primates have the capability of performing many cognitive skills, but fail to display them because they are not required to exercise these skills in their natural habitat or everyday life. Great ape intelligence is something that cannot be denied. There is a plethora of research that proves cognition abilities within great apes.

Gorillas are animals that are very similar to humans, so studying them can help researchers and scientists understand more about ourselves as well as the gorillas.

When it comes to similarities between gorillas and humans, there are many characteristics of gorillas that resemble those of humans, ranging from physical appearance to behavior. As stated by the Berggorilla & Regenwald Association, when

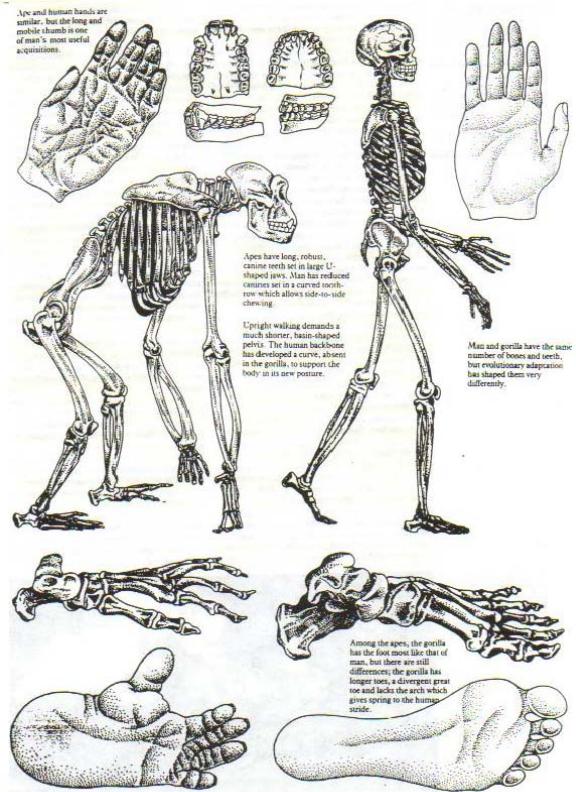


Fig 1 Physical similarities between humans and gorillas.

Source: Gorillas and Humans Have a Lot of Similarities. Web.

compared to other apes, like chimpanzees and bonobos, gorillas bear a resemblance to humans that is greater than any other ape. This is despite the fact that chimpanzees and bonobos are closer relatives to humans than gorillas. The similarities for physical appearance can be related to the amount of time gorillas spend on the ground unlike other apes. This specific characteristic makes the gorilla's feet be better suited for walking. The physical aspect that is more similar between humans and gorillas are the hands and feet. Figure 1 shows physical similarities in the bone structure of humans and gorillas. All physical similarities humans

share with apes are due to the similarities in our genes.

Another significant similarity between gorillas and humans is found in the DNA.

The Berggorilla & Regenwald Association was able to examine genes between humans
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and gorillas, and specific genes were different by only 1.6 percent. The genetic material between humans and gorillas is almost indistinguishable. As for behavior, gorillas are social animals just like humans are. Being social has many benefits; the most essential one for gorillas is the protection against predators. As stated by Robert Jurmain, a professor emeritus from the San Jose State University, “Leopards are the most serious nonhuman threat to terrestrial primates” (165). Living in communities allows for a stronger defense against predators and better surveillance against those predators. As humans, we also live in communities that provide us with protection and make us feel safe. Another benefit of being social is to be able to compete for resources, sometimes against the same species. Gorillas also tend to be calm, reserved, and patient, unlike other apes like chimpanzees. All the similarities discussed are essential to the understanding of gorilla’s cognitive and language abilities.

Tool use is another indication of the evolution of cognition within species. As stated by Michael Tomasello in *Primate Cognition*, the reason tool use demonstrates a high level of cognitive intelligence is that “it is an indirect means of goal attainment” (58). Anne Russon, an expert in ape intelligence from Canada’s York University, supports this and proclaims that the “notion is [tool use] requires higher intelligence, because it requires refashioning what nature has provided to achieve the user’s goal” (Dell’Amore). Both of these experts agree that tool use is a sign of intelligence. Earlier in the 20th century, before the many great discoveries by the prominent primatologist, Jane Goodall, tool making was seen as a trait uniquely related to humans. Jane Goodall’s discovery that chimpanzees not only could use tools, but could also make them, disconcerted the world of anthropology at the time. Man, was perceived to be unique for

his toolmaking abilities. Therefore, after finding out about Goodall's discovery, Louis Leakey, who was a paleontologist that had recruited her, wrote to her saying "Now we must redefine 'tool,' redefine 'man,' or accept chimpanzees as humans" (Quammen). Her discovery was monumental in the field of anthropology because now humans are not the only species associated with the ability of toolmaking. This discovery helped put apes in a higher level of intelligence, closer to humans.

Unlike chimpanzees, gorillas are not particularly known for using tools in the wild. This is due to their lack of necessity to use tools. In most habitats for gorillas, there is usually a surplus of food plants to eat, so they require little to no tool use. However, there have certainly been a few cases in which gorillas were witnessed using tools in the wild.. The first time gorillas were observed by researchers using tools in the wild was the most notable of these cases. This incident happened on November 2004, in Mbeli Bai, which is part of a National Park in the Republic of the Congo. A researcher named Thomas Breuer and his team observed a female gorilla using a stick to probe the depth of water as she walked across a pool of water (Pickrell). Most apes use tools as a way of food retrieval, but gorillas demonstrate the cognitive intelligence to use them in other ways. As noted by Gillian Sebestyen-Foster, who studied gorilla communication in the United Kingdom, when gorillas use a stick to "extend their sensory experience", it suggests that gorillas are "capable of some mental calculation and abstract thought" (Pickrell). Gorillas in Mbeli Bai helped support the argument that tool use in a habitat such as theirs reflects ecological needs. They are adapting to their specific environment and using tools to help them along with their daily tasks. This also proves that gorillas have the capacity of innovation.

Another crucial evidence of gorilla cognition witnessed in the wild, was an incident that occurred in Rwanda. In Volcanoes National Park, a pair of young gorillas were witnessed dismantling a snare a few days after a snare had killed one of their own. A snare is a trap that poachers use to capture mainly antelopes, but gorillas sometimes get trapped. This was the first incident in which young gorillas of about four years old were ever seen destroying a trap (Than). In the past, only mature gorillas had been observed disabling snares. From this, it is easy to conclude that gorillas are associating snares as being dangerous and so they figured out a way to learn how to take them apart and reduce the risk. Furthermore, this evidence proved that young gorillas were learning from the older ones from something as simple as watching, which is one way humans learn.

In the book *The Origins of Language*, a few examples are given of activities that are similar between the human species and some primates. In Congo researchers observed wild bonobos as they traveled. They discovered that the bonobos were intentionally flattening down the vegetation as they moved. What the researcher's findings showed, was that this non-vocal behavior could indicate the capacity of symbolism and even displacement (King 39). The reason for this belief was because the flattening could communicate across time and space. They were making a path, similar to how humans would make roads. They understood it was important for them to be able to get back to where they were. Another similarity between human communication and primate communication involves conversational turn-taking. Much like humans, when some primates communicate they are exchanging their form of conversation and taking turns when doing so. These events are some of the few in which researchers

have been able to observe primates in the wild. Primates like gorillas are very reserved and cannot be easily studied in their natural habitat.

Most of the studies conducted on primates did not take place in a natural setting. The studies mentioned before, are infrequent because it is hard to always keep track of animals such as gorillas, to make proper knowledgeable studies. As a result, it is even more difficult to test for specific cognitive skills in the wild. Therefore, most of the studies that exist take place in other settings, like research facilities or zoos. To be able to learn about primate intelligence and to see how it compares to that of humans, many studies also include human infants. Some of the studies included in the book *Primate Cognition* range from cognitive mapping, to searching for hidden objects, spatial reasoning, to even tool use and object manipulation. From all these studies on all species of primates, it was conclusive that apes were the smartest of the species, showing reliable achievement in most studies. Another great finding was that some primates have knowledge of the social world.

This knowledge includes knowledge of individuals, knowledge of behavior, and knowledge of direct relationships (Tomasello 193-197).

In their natural habitat, gorillas communicate through a series of gestures. A study conducted

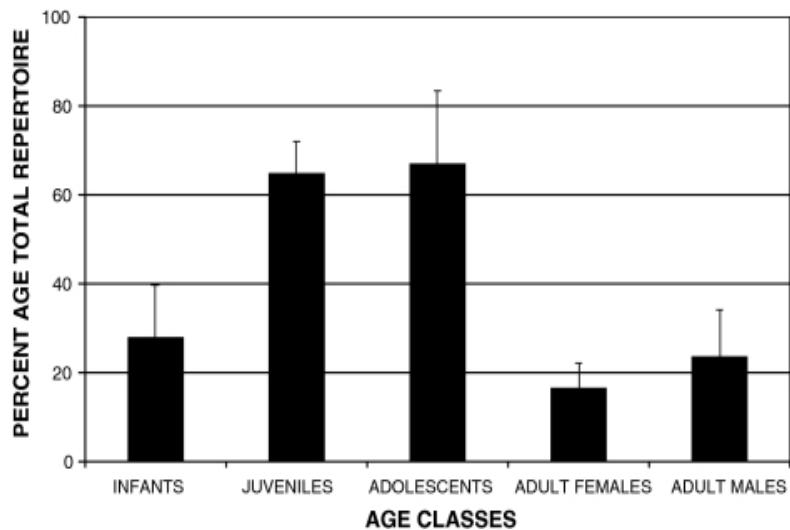


Fig 2 Age distribution of gorilla gesture.

Source: Gestural Communication of the Gorilla/Genty. Print.

on the gestural communication of gorillas, led by Emilie Genty, observed social groups of gorillas in four different locations. Out of the 9,540 gestures that they observed, they categorized 5,250 of them as being intentional (527). Figure 2 shows the percent of repertoire gorillas have at specific ages of their life. When it comes to auditory communication, the system primates use is not like that of humans. Genty found that auditory communication in gorillas is functional, opposed to gestural communication which is generally intentional and specific. The discovery that gorillas have a certain degree of voluntary control over gestural communication helped researchers realize that gorillas could be taught American Sign language. Communicating through gestures allows apes to have more flexibility with meanings, unlike with vocalization. The display of flexibility in the gestures of gorillas is incredibly similar to how young children would communicate (Genty 528). From her study, Genty proposes Tomasello's theory of ontogenetic ritualization. This theory suggests the "transformation of normal, functional behavior, under the influence of unintentional reinforcement (shaping) by a partner, to become an intentionally used signal" (528). This theory, which was witnessed by Genty in her study shows that gorillas are giving a specific meaning to specific gestures and using these gestures to communicate with each other. Gorillas are creating their own kind of language within their own groups. The gestures they create are unique to the individual and to gorillas in the same group. Therefore, they are not understood by members of other groups.

Genty's study also addresses the issue of nature vs. nurture within the gestures of gorillas. Some gestures could be a result of their biological inheritance. From her results, she did notice some gestures that were relatively similar in different groups of

gorillas (529), proving some sort of genetic similarities between species. The characteristics that were observed that are comparable to “forms of human non-verbal communication” include flexibility, goal directed communication, and the understanding “of the attentional state of the audience” (542). Being able to understand gorilla’s gestural communication in their natural habitat can help others see that their form of communication is like a language. This then shows that the idea of teaching a gorilla to communicate through american sign language could be something that is not entirely impossible.

Like most humans, gorillas live in groups. People are products of the social times in which they live and who they are surrounded by. Humans have a more evolved form of social groups, which includes family, friends, acquaintances and many more. Just like humans are influenced by the people that they are surrounded by, gorillas are also influenced by the group they live in. In a study conducted by Richard Parnell on the social structure and behavior of gorillas, he states that “The group shapes the character of developing individuals, influences dispersal patterns, and impacts upon reproductive success” (106). For gorillas, being in a group is crucial to their survival. It also makes it a lot easier for them instead of being on their own. It is all about survival strategies. To choose a group, a gorillas has to realize that there are more benefits in group living. As mentioned before some of the benefits from group living include protection from predators, because there is more vigilance or “through the dilution effect” (107), a better location for food resources and more that outweighs the negative aspects of group living. Parnell says that for female gorillas group living is crucial to reproducing (108).

Solitary individuals are less likely to succeed. This could be because solitary individuals may be seen as out of the norm. Just like humans, they tend to stick to what is normal.

Culture is yet another aspect that is believed to be only human. There is a lot of research trying to discover culture in animals. The reason for trying to find if non-human animals can exhibit culture is because scientists want to understand the origins of culture in the human species. In the study “Behavioral Variation in Gorillas: Evidence of Potential Cultural Traits” conducted by Martha Robinson, cultural traits within animals are divided into “diet, foraging techniques, tool use, and social interaction” (2). This shows that there are different aspects of culture as might be expected. The study took place in five sites and focused on western gorillas. The study took into account 41 behaviors in wild gorillas and out of them 23 were classified into having the potential of cultural traits (Robinson 7). This study is relevant because it provides evidence to the theory that non-human animals can have traits of culture. All studies that show similarities between humans and gorillas prove the link that there is between one another.

The most remarkable study that involves a gorilla, is Project Koko. Project Koko is not the first study of primate language ability, but it is the first to include a gorilla. This study is essential to understanding many of the capabilities gorillas have. These capabilities include language, intelligence, and emotion. Koko is a lowland gorilla that was born in the San Francisco Zoo in 1971. This is where Penny Patterson met Koko. Penny Patterson was a Stanford graduate student when she met Koko. Penny requested permission from the zoo to work with Koko as part of her Ph. D. research in psychology at Stanford University. The zoo accepted with the condition that Penny

made it at least a four-year commitment. Penny started working with Koko when Koko was a year old and so Project Koko started in 1972.

The main and original goal of project Koko was to see the possibility of teaching a gorilla sign language. If teaching the gorilla sign language succeeded, then through direct communication scientist wanted to find out how much they could learn about gorillas' cognitive abilities. This goal, which has very much been achieved, has evolved to include other forms of communication. Over time the focus also shifted from being primarily pure scientific inquiry to producing benefits for great apes, such as great ape welfare, education, and conservation, using scientifically validated methods (Koko.org). The success of Koko supports Charles Hockett's essay on animal and human language. This project proves that humans are not the only species capable of having a sophisticated communication and even language. Sign language is a visual language that uses symbolic communication. Sign language is unique; it is different from spoken English, but it is a language. Sign language was created to communicate through hand motions and gestures, which is perfect to teach an animal such as the gorilla. Thanks to Project Koko and Penny, Koko had the chance to learn over 1000 signs and understands over 2000 spoken words in English. Figure 3 shows Koko demonstrating some ASL signs.



Fig 3 Koko signing.

Source: The Gorilla Foundation/Koko.org. Web.

Project Koko used the perfect strategy to overcome the limitations of teaching apes spoken language. Linguistic studies on primates used to focus mainly on chimpanzees because it appeared to be much simpler than working with gorillas. The reason sign language is the perfect fit to communicate with gorillas is because of the physical similarities in the hands of gorillas to that of humans as mentioned before. After the first two years, Koko was exposed to sign language for about eight and a half hours each day. The intensity of the exposure can be related to the success of the project. The use of spoken English in addition to sign language also helped Koko succeed in the development of language. Project Koko help disprove the belief "that if Koko could not generate spoken words, she could not understand them" (Patterson 98). After it was clear that Koko had learned sign language and could understand spoken English she had many conversations with her teachers that showed an interactive function of language.

Some people might be inclined to argue against project Koko for a variety of reasons, such as the fact that the study was only conducted once and that Koko could be a special case in which a gorilla was able to learn sign language. However, it cannot be argued that Project Koko is inconclusive because Koko is not the only gorilla involved in the project. In 1976, a male gorilla named Michael joined Koko. Later on, in 1991 they were joined by another male gorilla named Ndume. The addition of the two male gorillas was ideal. The most remarkable discovery from the addition of more gorillas was that Koko started to teach the other gorillas signs. In the wild, primates are some of the few species in which the infants are dependent on their mothers for a long period of their development, similar to how human infants are dependent on their

parents to take care of them until they are adults. Throughout the time human infants spend under the care of their parents, language is surrounding them. Therefore, they learn language from their parents. Koko shows this same human characteristic when she was observed teaching sign to the other gorillas who were younger than her. It was incredible to see that she was passing on something she had learned. Another astonishing discovery was that Koko was capable of combining and creating new signs for words she had not yet learned. This discovery proved that Koko was not merely imitating, but that she understood the language and its context. The exposure to language gave Koko an opportunity to learn it.

There is an ongoing debate about nature vs. nurture in science. In psychology, development of any kind, including language, is the result of successive interactions between nature and nurture. People are born with certain characteristics, but they are influenced by their environment as well. The debate about whether language is innate or is it something learned is important. It is unfeasible to create an experiment to solve the debate without breaking ethical rules. Despite this, there have been extreme cases that allowed for studies of language. There is the case of Genie, a girl who was isolated from any social interaction for twelve years of her life since she was one year old (Angyal). This is an extreme case and it attracted many psychologists and linguistics. In the article “Overview on three core theories of second language acquisition and criticism”, Romana Dolati suggests that there is a critical period in the development of a child in which they can acquire language skills. Without the exposure to language during a specific stage of development it is hard for a child to develop proper language. Thanks to the case of Genie, it was proven that “some degree of first language acquisition

seems to be possible beyond the critical period" (Curtiss 95). This all relates back to Koko and her own journey to the acquisition of language. Koko was able to learn language because she was surrounded by it. This is based on the Interactionism Theory of language; a theory that proclaims that language is learned due to "an interaction between the learner's mental abilities and the linguistic environment" (Dolati). From this theory, it can be argued that animals such as gorillas have the mental ability to understand and learn sophisticated communication and even language, they just need to be exposed to it.

Project Koko did not only portray the cognitive and language abilities of gorillas but also the emotional ones. As mentioned by Penny Patterson, throughout her research one of the most unexpected discoveries she made was the realization that Koko had emotions just like any other human would. Patterson says that Koko showed embarrassment, had a sense of humor, and would even sometimes lie (Koko.org). When Michael joined project Koko he was the one to really give perspective the idea that gorillas have deep emotions just like humans do. After Michael had learned sign language, there was one occasion in which he was asked about his mother, and he signed words like "bad", "sharp-noise", and "cut neck". This particular incident ended in the conclusion that when Michael was a baby he had probably witnessed the murder of his mother, and that is how he became a captive gorilla (Koko.org). The fact that a gorilla could recall a traumatizing event in his life as a baby, relate it to himself and his emotions, and then communicate it back to the researchers is astonishing. After finding out about his early life, Patterson was able to understand the reason for Michael's personality traits. He and Koko had very different personalities, just like one might

expect to see with humans. Sign language facilitates the understanding of gorilla's "intellectual, emotional, and social development" (Patterson 98).

The overall achievement of project Koko is that it seems to be possible to teach gorillas an artificial, yet human language such as ASL. A project like this is not easy to replicate because of the ongoing commitment required and the necessity for a lot of funding. So far, project Koko has been one of a kind. It is the longest continuing study of its kind, with over three decades of research. For Penny, it was only supposed to be a four-year study, but it turned into a lifelong commitment. The main reason for this project's success, is Penny. She had so much patience and stamina to work with Koko and the other gorillas. Project Koko also has grown from just being a study of ape language to also learning how similar gorillas are to humans cognitively and emotionally.

The debate about whether language is human is one that affects many fields of study. Some of these include linguistics, psychology and anthropology. In the article "Language acquisition by a lowland gorilla: Koko's first ten years of vocabulary development", Francine Patterson addresses the question about language being uniquely human or not. She concludes that the best way to answer this question is for scientists and researchers to study the cognitive capabilities of great apes, our closest biological relatives (97). By understanding the cognitive abilities of apes we can learn more about their linguistic abilities and vice versa. Cognition and language are very closely related. A higher level of cognition is expected for a species to be able to develop language. In humans, technology has allowed us to discover that there are language related regions in the brain (Reinke 1357). With this knowledge, researchers

can look at the brains of gorillas in the wild and compare it to gorillas like Koko who have acquired language. If there is a distinction in the brain regions which are related to language, then the theory of humans being unique for their language capabilities would be renounced.

There are many theories about the evolution of language. Most of these theories find a connection between humans and our primate ancestors. One of the theories discussed in the book *The Origins of Language*, was proposed by Gibson. Gibson “suggests that monkeys and apes are only quantitatively different from humans in both communicational skills and the brain mechanisms underlying them” (King 40). She explains that there is no evidence that is substantial enough to prove differences that are qualitative across primates. She believes that the unique intelligence humans have is due to “brain-mediated-expansions of mental constructional skills” (King 40). Her theory also suggest that language is not one specific thing, but that it consists of many features. This idea helps explain that humans are not the only species that have language. Humans might be the species with the most developed language, but it does not mean their primate relatives do not possess it as well. The thing about animals is that humans cannot fully communicate with them directly. It is not correct to assume that we can understand everything from animals by just studying them. Just because people may not understand animals it does not mean they should not acknowledge their intelligence. Gibson therefore argues against the ape-hominid boundary. She does not consider the idea that hominids or humans are unique in comparison to all other primates.

On the other hand of the argument there are many theories that go against a theory like the one of Gibson. Many theorists suggest that there is no current connection between humans and primates. One of these theories was proposed by Pinker. Pinker's theory on language evolution is that "language developed gradually via natural selection, but entirely within the hominid lineage" (King 27). Even if language developed slowly over time, the biological connection between humans and some primates like apes cannot be denied. He does not believe that apes such as chimpanzees have a language at all. The main reason for his belief is that for Pinker, the fundament of language is grammar. Grammar is a unique human skill. Therefore Pinker sees primates as having no language.

In order to have a consensus on whether or not primates possess the ability of language, there needs to be a universal definition for language. As seen before, if a person believes that language consists mainly of grammar, then it is impossible for them to see the perspectives of others who see language in a different way. This belief prevents them from accepting other viewpoints. There needs to be an understanding that grammar is not all that language consists of. Language is made up of many different features, and one of them could be grammar. Creating a universal definition of language could help diminish the debate about which species possesses language. The problem with this idea is that it gives one strict definition of language, when in fact language could vary greatly from species to species.

The main reason to learn about gorillas and understand them is to raise awareness of them. Gorillas are in so much danger of extinction in the wild. The number of gorillas in the wild decreases drastically over the years. The leading cause to their

endangerment are humans. In a research conducted by Andrew Plumptre, there is a clear decline in the species population. In this research Plumptre studies the population a subspecies of the eastern gorilla, the Grauer gorilla. This specific species of gorillas is even more endangered and it is in the list of threatened species. Within one generation of this subspecies of gorillas, Plumptre observed a 77 percent decline in the population (1). Humans are the main cause of this extreme decline. From deforestation to civil wars, gorillas are not safe in their own environment. All the evidence presented above should help understand all the broad intelligence of gorillas and should help with finding a connection between the species. Being informed is necessary to be able to begin any type of conservation and or welfare projects.

From all the studies that were mentioned before, it can be concluded that great apes such as gorillas are showing the capacity to learn language and that they have cognitive and emotional abilities. As mentioned before, language is very closely related to cognition. There must be a certain level of cognition within a species to be able to develop language. Even though some of these abilities within gorillas might be at the level of toddlers, they are still showing the capability to understand and learn language. Something that was once thought to be uniquely related to humans. All the findings point to the intelligence of gorillas, and that it has always been there. A lot more research has to be done and even with that researchers and scientists will not be able to fully comprehend gorillas. Unless there is a way to communicate with them in a level similar to that of humans, researchers can never be a hundred percent sure of the cognitive abilities of gorillas. Just as humans have evolved over time, gorillas could also

do the same if it was necessary for them to survive in their habitats. All the evidence provided and more shows that gorillas are very much capable of a higher intelligence.

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The LEGO Group's Corporate Citizenship
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Panel: Business and Economics
Mentors: Professor Elaine Torda and Dr. Russell Hammond

The LEGO Group's Corporate Citizenship

The LEGO Group has maintained an influence through many different mediums. As time has progressed, the company has been required to adapt to fit the cultural phenomena that is present at any given moment if they wanted to be successful, and in the process of doing so, have had moments of both prosperity and failure. Though the group has enjoyed its fair share of positive reception, it has not been immune to criticism. All of these differing perspectives on The LEGO Group can be classified as the company's ability to practice positive corporate citizenship. Corporate citizenship is defined as "a recognition that a business, corporation or business-like organization, has social, cultural and environmental responsibilities to the community in which it seeks a license to operate, as well as economic and financial ones to its shareholders or immediate stakeholders" (Work and Family Researchers Network). Despite arguments to the contrary, The LEGO Group practices positive sociological, environmental and business-related corporate citizenship.

Corporate Citizenship On a Sociological Level

Though LEGO sets are seen as being very enjoyable to play with, some individuals feel that this factor can take away from the essential framework of getting children to blossom and become more aware of the world around them. Simons establishes the argument that LEGO products are ruining the creativity of children through the implementation of franchised sets within the last twenty years. Principled LEGO enthusiasts argue that themes including Star Wars, Lord of the Rings and Marvel, undermine the entire point of the toy, as they encourage children to construct showpiece models from instruction booklets rather than building something new from

their own imaginations (Simons). The article goes on to state that many individuals believe that the complex pieces contained in franchise sets make it challenging for children to pursue their own designs (Simons). Said complex pieces include pre molded animals, specialized windows and roof pieces as well as weapons that are tailored exclusively for specific characters (Simons). The article concludes that play experience is a vitally important part of a child's development and that toy manufactures are uniquely placed to influence their lives -- for the better or for the worse (Simons). Articles such as this give The LEGO Group a more negative reception in context of how its sets can affect children.

Though mostly recreational in nature, LEGO sets can prove to be useful in many instances that can help children to grow and better utilize their creative natures. Li et al establish the case for why LEGO brick should be used to help younger kids get involved in STEM programs, which can prepare them for certain professions, therefore leading to an increase in creative potential. They concluded that by a study that established a significant increase in science and problem-solving performance by students who used LEGO sets (Li et al. 143). In other words, LEGO sets can create a positive influence in a child's life.

Despite claims that LEGO sets are not as creatively impactful as they are meant to be, several sources indicate that The LEGO Group is staying true to its claims of facilitating creativity. Moreau and Engeset discuss problem-solving skills and conducted several experiments that tested children's abilities to improve them based on completing certain tasks, including building LEGO sets. One group did projects with instructions and one without as they built a LEGO set. This was followed by other creative projects

to measure how the groups reacted based on their problem-solving mindsets as a result of the LEGO builds (Moreau and Engeset 28). Their results demonstrated that a problem-solving mindset can be enhanced (Moreau and Engeset 28). This source suggests that though some individuals may not see the benefits of LEGO products and their creative influences, many instances exist in which using such products can benefit child development. This suggests that LEGO has positive sociological benefits.

Due to the extensive amount of popularity that The LEGO Group has maintained through the media, many individuals have seen an extensive amount of coverage on what the company appears to represent on a more idealistic basis. Bartneck et al suggested that LEGO sets are becoming more violent, proved through an observation of the company's set release timeline and the number of individual pieces that could be classified as "violent" (Bartneck et al. 1). Their results found that every single tested factor, including psychological aggression, violent atmospheres, seriousness of the realization of violence, consequences of violence, realism of the violence, clarity and vividness of the violence, and brutality, have all increased over the production years of the company's products, some more significantly than others (Bartneck et al. 1). The article states, "Violence has become an everyday occurrence in television, games and toys, and this is of particular concern when it comes to media aimed at children" (Bartneck et al. 1). Essentially, The LEGO Group seems to have maintained the notion that its audience prefers a series of sets that focus more on violence rather than simple building experiences.

By acknowledging the argument presented by Bartneck et al, the LEGO Group can begin to incorporate a stronger system of division between the different genres of sets. This would allow the company to relieve the issues presented.

By observing the different arguments presented and coming to a defined conclusion based off of the main points of each source, it can be established that LEGO needs improvement with regards to product and media representations of violence. To improve the situation, The LEGO Group could focus less on the violent themes within its sets and endeavor to implement more creative opportunities for younger children within the same sets, including different building techniques for each model within the set, as had been done in previous years. The company can also rate and market violent themes only to the older kids through more mediums than the simple age recommendation, including a strong disclaimer along the bottom of each package. This style can also be printed onto European boxes, which do not bare the age recommendation (LEGO Historian, Eurobrick Forums). Though some themes, like LEGO City, make use of this currently, there are other themes, such as LEGO Ninjago, that could use this technique more often.

The LEGO Group's representation of gender has been seen by several sources as being unfair and biased to the point where male LEGO figures outweigh Female LEGO figures in several themes. This lack of representation in certain sets leads to a string of negative stereotypes that ultimately leave The LEGO Group with a negative reputation.

Historically, The LEGO Group was marketed as more of a male's toy than a female's toy, and this is reflected in how sets for the different genders are priced. Orr

establishes the comparison of LEGO Star Wars sets and LEGO Friends sets by price per part. The evidence shows that the Friends sets are generally more expensive (Orr). Though both boys and girls are known to play with LEGO Star Wars Sets, especially in recent years, the theme is generally focused towards males, while LEGO Friends sets are generally focused around the female demographic. This led the instructor and participants in the comparison to come to the conclusion that LEGO is gender biased against the female demographic (Orr).

LEGO is beginning to understand the necessity for making the genders equal in its sets. Hyde establishes that LEGO is improving gender stereotypes, albeit slowly, as expressed through the male to female minifigure ratio presented within LEGO City sets as well as the increase in more “male-oriented” professions established in LEGO Friends sets, including the piloting of helicopters and boats (Hyde). The LEGO Group is slowly trying to equalize the genders and give both males and females a stronger presence in less traditional roles. Though Hyde states that the company still has work to do, it is moving in the right direction (Hyde).

In regard to this point, The LEGO Group has issues in gender equality and needs to improve its rate of dealing with it.

After analyzing these points, it can be established that The LEGO Group does indeed practice positive corporate citizenship under a sociological context.

Corporate Citizenship on an Environmental Basis

The LEGO Group has established a mixed reputation with regard to its impact on the environment. Said factors can also establish a pathway for the company’s future endeavors in environmental preservation. By examining these factors together, one can

determine whether or not The LEGO Group acts within the scopes of corporate citizenship.

When conglomerates interact and make deals with one another, individuals observe and make conclusions about whether or not the collaboration works in the best interest of every group involved. For several decades, The LEGO Group was involved in a partnership with Shell Oil, which led to criticisms from Greenpeace activists. The LEGO Group created sets that carry the Shell Oil company logo which served as advertising material for customers (Olsen). According to Olsen, Greenpeace activists feel that Shell Oil is taking advantage of The LEGO Group's popularity to bolster, or support, its image in the eyes of the general public (Olsen). This is evidenced through the extensive amount of LEGO products produced over the last 50 years that carry the Shell Oil logo (Olsen). When children buy the sets, Shell is given an opportunity to expand its broad recognition and popularity to younger generations. This is concerning to environmental protectors such as Greenpeace, as the LEGO products bearing the Shell Oil logo have the potential to normalize the harmful practices that the company partakes in (Olsen). The criticisms prompted The LEGO Group to wonder if continuing its partnership with Shell Oil was in its best interest (Olsen). This lack of action suggests that The LEGO Group is more concerned with making money than with improving its negative impact on the environment. To the Greenpeace activists, The LEGO Group should not have to take time to think of the consequences, but focus on helping the environment by not promoting companies that cause it harm. The LEGO Group's collaboration with Shell does nothing positive for the environment, nor the children who purchase the sets. The latter of the two factors normalizes the oil company and makes it

seem innocent in regard to pollution and other damaging effects, which is untrue (Olsen). Ultimately, The LEGO Group's collaboration with Shell Oil and its petroleum products proves to be detrimental to its reputation. This point is only fueled by The LEGO Group's products and what they are made of.

The primary ingredient in the interlocking bricks is oil-based plastic, which is notorious for contributing to negative effects in the environment. Elmansy states that ABS (Acrylonitrile Butadiene Styrene) accounts for 70% of LEGO plastic usage (6,000 tons) every year. The raw materials overall represent 30% of its gas emissions (Elmansy). Despite these factors, some sources feel that any attempt to shift the production of LEGO products to a less environmentally damaging medium are pointless.

Palmer states that LEGO's attempts to launch a line of bricks made from more sustainable materials is ultimately futile because the current ABS (Acrylonitrile Butadiene Styrene) plastic is already "great," as it is precisely moldable and takes color in a way that more neutral ingredients are unable to duplicate effectively at this time (Palmer). Their use of plastic over an extended period of time has led to the company's negative contributions to the epidemics of climate change and pollution.

Though The LEGO Group has maintained a debatable standing on environmental issues, sources have come to the conclusion that many of the company's current endeavors are attempting to be more conscious of these concerns. Feld states that The LEGO Group's attempts to build a wind farm is part of an initiative to become 100% carbon neutral by 2016, and that the turbines will help offset more traditional forms of generation used to power its global factories (Feld). This suggests that the company is trying to improve its standing as quickly as possible.

Along with this, the company has taken steps to make its packaging boxes smaller to combat its negative impact on the environment as well. Deforestation is a major contributor to the environmental issues facing the modern world. The LEGO Group uses the cardboard boxes to package its sets, thereby contributing to tree loss. On the company's website, Trangbæk discusses a combat mechanism for this issue. Though criticized for its use of oil-based plastics, the company has found ways to address the environmental concerns without necessarily changing the oil-based plastic problem so quickly that it could fail or falter. It has implemented a plan for phasing on smaller packaging, thus reducing its cardboard consumption. This, coupled with the company's investment in wind energy, are examples of progressive change that could be seen as attempts to reduce the company's carbon footprint (Trangbæk).

The LEGO Group has begun to explore other methods of more sustainable material use in its production line for future products. Koffler states that The Lego Group wants to replace the plastic in its products with a “sustainable material” by 2030 and will invest \$1 billion in its new LEGO Sustainable Materials Centre in Denmark, which will be devoted to hiring 100 specialists and to finding and implementing new sustainable alternatives for its current building materials (Koffler). While Palmer essentially stated that The LEGO Group should give up pursuits to incorporate more sustainable materials into its plastic products all together, Koffler establishes that the company already has outlined a legitimate plan to change its products for the future, as evidenced through the large investments into the materials center.

In regard to the environmental aspects of corporate integrity, while claims against LEGO were justified, it is making a number of serious attempts to improve. Assuming it

continues on the path and eventually expands, this area seems to have been turned around and could be seen as a strength assuming plans become reality.

Corporate Citizenship on a Business Level

The final area to consider in the corporate citizenship question is business. Does the organization engage in “positive” business practices? This warrants explanation. Some sources imply that The LEGO Group is becoming a monopoly in the building blocks market, leading to a lack of competition from similar brands. Masnick overviews an intellectual property dispute between LEGO and competing Canadian brand, Mega Bloks, in 2005. He states that The LEGO Group had “been in the news... because of their overly aggressive lawyers who scolded people for thinking their website was legos.com instead of lego.com, and then told an artist whose middle name actually was Lego, that she couldn't use that name in her artwork” (Masnick). He then states points that the LEGO Group’s lawyers at the time were overly aggressive - attempting to block the other group from expanding in the market. The lawyers specifically wanted to stop other companies from being able to use the interlocking brick system that is present in almost all LEGO products.

This accusation suggests the company is acting as a monopoly - which is harmful to often smaller businesses and therefore not good citizenship.

Even though LEGO may give off a monopolizing vibe to some critics, many believe that its collaboration with other companies and its corporate branding style may say otherwise. Schultz and Hatch discuss the complexities of corporate branding: and the company works hard to create and manage their global brand coherence. It wishes

to be “the” name of interlocking piece sets. This can result in practices that seem predatory (Schultz & Hatch).

Another concern raised is that The LEGO Group is too selective in its charitable activities. The LEGO Group states that it cannot participate in all forms of charitable events. The company can cater towards events that instill creativity and give support to marginalized/vulnerable children, but at the same time, it refuses to commit to causes that require financial support, sponsorships, donations for lotteries, fairs, prizes, parties, festivals, team building events or the like, nor the donation of products to summer camps, waiting rooms, students projects, libraries or the like (The LEGO Group, Charity and Donations). Though this set of guidelines is reasonable to some, other individuals may see the need for expansion into the different types of charitable events/causes stated, specifically monetary donations.

Though it may not be detrimental to The LEGO Group’s name if it does not pursue the remaining forms of charitable actions, it may serve as a disadvantage when time comes for critics to assess The LEGO Group’s desire to see positive change in the business world. Despite this, the company can maintain a more positive reception in regard to corporate branding and collaborations with other companies. In order to optimize successful turnouts, it is very important that companies remain as neutral as possible when it comes to interactions with other parties or conglomerates, be them competition or otherwise. Though The LEGO Group has many dealings with other parties, some of the interactions and end results have produced debate on whether or not the company handled the situation in the most neutral and unbiased of ways.

After reviewing the sociological, environmental and business-related aspects of The Lego Group and whether or not it practices good corporate citizenship through analytical lenses, suggestions can be made for ways that the company can improve its standing for the future.

Overall, from a sociological perspective, The LEGO Group seems to remain capable of enhancing creativity in children, but needs to address valid concerns with regard to violence and gender equality. While the latter sees some improvement, the work needs to be addressed more quickly. Creating an all-inclusive toy, though challenging, has proven to be one of The LEGO Group's crowning achievements. Be that as it may, the company is not immune to criticism in this aspect. The company can stifle creativity through the use of instructions within most of their building sets. However, following the instructions is not a necessity to enjoy the play experience offered. Thus, the company must focus on continuing this generally positive trend.

In the context of violence and media representation, The LEGO Group has earned a more mixed review, though it is still positive. Ultimately, the company endeavors to establish a more innocent and child-friendly environment for customers, including recent efforts to lightening the mood of some of the most disturbing scenes from popular franchises. However, that obviously does not stop the customers who range outside of the company's target demographic from potentially overshadowing this attempt with their own, more mature, creations. Along with this, The LEGO Group itself has begun to incorporate more violent or serious themes into several of their sets, both licensed and unlicensed, as a result of its endeavor to remain relevant in the modern day culture. The overall changes in global standards and expectations justify these

changes. For the company to maintain and improve in this area, it must place a larger focus on continuing to develop products that are both appealing and child-friendly.

Gender representation within The LEGO Group's sets and related products proved to be the most debated. Though the company caters to different genders, a divide between them does exist. Themes such as LEGO Friends give girls a stronger representation, but for what the general population considers to be an extensive amount of stereotypes, all of which give girls unrealistic expectations for themselves and for life as a whole. In order to combat claims of unequal representation, the company must expand its themes to provide strong female characters. Ultimately, the company is acting within the confines of corporate citizenship on a sociological level, in that it extensively tries to maintain and improve how the sets actually impact the customers, on a physical, mental and emotional level.

Speaking environmentally, The LEGO Group is in a more debatable position as of 2016-2017; however, the company is taking steps to improve its overall standing, by trying to improve its carbon footprint through the severing of ties to other harmful companies, building a wind farm, and shrinking the overall sizes of their set boxes. Still, most of the company's products are made of plastic. Overall, the company must continue to seek and implement plans to encourage the improvement of the environment, which falls into the necessary requirements for corporate citizenship and responsibility.

From the business perspective, one can conclude that the LEGO Group's actions do meet the requirements for corporate citizenship, in that the aspects presented are legal and do not obstruct other companies from competing against them. Though The

LEGO Group has been accused of monopolizing and becoming too large, it has redeemed its name by giving to charities as well as giving new life to website professions.

Overall, The LEGO Group is acting within the confines of corporate citizenship, with a few exceptions that are more challenging to resolve. So long as the company continues to improve and tries to make decent impressions on the globe from most major perspectives, it will continue to survive and thrive.

In regard to future research, the cultural impact of the company has yet to be truly analyzed. The influences that the company maintains towards alienating and encouraging different cultures and communities can be expanded upon. Differences exist between how a European child experiences and plays with a LEGO set in comparison to a child in North America, Africa or Asian or the Middle East. The LEGO Group has come a long way since 1932, and it continues to have an impact on the world through its corporate citizenship and overall popularity.

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Ramsey Marte

Testing Herbs for Antibacterial Properties

Orange County Community College

Panel: Empirical Research/Natural Sciences

Mentors: Professor Elaine Torda and Dr. Michele Paradies

Testing Herbs for Antibacterial Properties

The origin of herbal medicine and products was dated back to roughly 300 B.C., when Theophrastus, a Greek plant biologist, began investigating the uses of medicinal herbs. Greek scientists Hippocrates and Aristotle observed healing properties in plants during their experiments, performed in the years 300-500 B.C (16). The first documented “records for the usage of medicinal plants dates back to 2400 B.C. on clay tablets” in Mesopotamia, followed by the Ebers Papyrus, an Egyptian medical scroll of herbal knowledge, in 1534 B.C., and the Chinese Materia Medica in 1578 (6). Medical discoveries, however, continued to emerge and became a new focus in the upcoming years, causing some to abandon herbal remedies. As a result, in the 1980’s, an increase in popularity of chemical synthesis occurred, resulting in a switch of focus from natural products to chemical laboratories for drug discovery and production (6).

Recently, however, public interest in herbal treatment has increased due to antibiotic resistance, an excessive increase in the cost of pharmaceuticals, and a societal shift against the use of harsh chemicals in medication, treatment, and cosmetics. Essential oils (EOs) from plants are currently used for various reasons, from treating infections to food preservation and cosmetics. They have “formed the basis of pharmaceuticals and natural therapies” (16), especially in the subject of antibiotic resistance. In order to stop the rise in resistant bacteria, antibacterials, in the form of essential oils, have currently been considered for the replacement treatment, forcing many researchers to turn towards the field of natural medicine to find antibacterial agents that can help against pathogens.

Oregano

The oregano plant, famous for its use in savory foods, belongs to the mint family Lamiaceae. Its top active components, responsible for oregano's claimed antimicrobial characteristics, are carvacrol and thymol (16). Due to their phenolic nature, thymol and carvacrol are said to be "the monoterpenes with the highest bactericidal power present in the composition of many EOs" (16). Oregano has been said to possess antibacterial, antiviral, and antifungal properties. In an experiment conducted by Fournomiti, et al., in 2013, oregano, among other essential oils, was used against *Escherichia coli*, *Klebsiella pneumoniae*, and *Klebsiella oxytoca*. The essential oil for oregano did demonstrate antimicrobial results. The average minimum inhibitory concentration (MIC), the lowest concentration of an antimicrobial substance that will suppress the growth of a microorganism after incubation overnight, was used to determine efficacy of the herbs. The MIC values for oregano against *Klebsiella oxytoca* were 0.90 µg/mL, for oregano grown in dry environment, and 2.11 µg/mL, for oregano grown in irrigated environment (10). The average MICs for oregano against *Klebsiella pneumoniae* were 43.5 (dry environment oregano) and 102.7 µg/mL (irrigated oregano) (10). The most resistant of the bacteria against oregano was *Escherichia coli* (*E. coli*), with average MIC calculations of 219.9 (dry oregano) and 236.1 µg/mL (irrigated oregano) (10).

Tea Tree Oil

Tea tree, a member of the Myrtaceae family, has active ingredients terpinen-4-ol and 1,8-cineole. Tea tree oil, commonly used in cosmetics, is said to be effective against acne, varicella, congestion and respiratory tract infections, among other uses (6). A

1990 study expressed the results that, despite not working as quickly, tea tree oil showed “statistical improvement” with acne lesions and a significantly lower percentage of unfavorable effects (2). Tea tree oil is said to be productive against gram negative and gram positive bacteria and fungi. In 2014, Chandras, et al., evaluated the effects of tea tree oil, garlic extract, chlorhexidine, cetylpyridinium chloride, and an ultraviolet toothbrush sanitizing machine against *Streptococcus mutans* found on toothbrushes. The 0.2% tea tree oil used exhibited antibacterial properties and was one of the top disinfectants (6). In a 2015 trial, performed by Sakkas et al, tea tree oil demonstrated the most antibacterial activity (from basil, chamomile blue, origanum, thyme) against *A. baumannii*, *E. coli*, *K. pneumoniae*, and *P. aeruginosa*, with MIC and minimum bactericidal concentration (MBC), which is the lowest concentration of an antimicrobial needed to kill a specific bacteria, values of 1.50 or less (18).

Cinnamon Oil

Cinnamon, commonly known for its use in scents and desserts, belongs to the Lauraceae family. Its active ingredients include eugenol, cinnamaldehyde, phellandrene, and methyleugenol. Cinnamaldehyde, with concentrations of about 80%, and eugenol, with 4%, can, at high quantities, destroy a bacteria's wall (16). A major chemical class that some of cinnamon's components belong to, which include “vanillic, caffeic, gallic, protocatechuic, p-coumaric, and ferulic acids” (14), are polyphenols, while the other major components fall under the volatile phenol class. The main volatile compounds are cinnamaldehyde, found in bark essential oil, and eugenol, found in cinnamon leaf essential oil. Cinnamon oil, largely cultivated in Sri Lanka, China, Seychelles, and Madagascar, is prepared using the bark, leaves, flowers, and fruits of

the herb (14). Cinnamon has been used to improve oral health and treat diabetes, inflammation, urinary infections, gastrointestinal diseases, and acne. This spice is known for its “antifungal, antitermitic, larvicidal, nematicidal, and insecticidal properties” (14). In a 2015 experiment, Zhang, et al., observed cinnamon’s impact against *E.coli* and *Staphylococcus aureus* (*S. aureus*). The cinnamon demonstrated compelling antibacterial characteristics against both bacteria, with MIC values of 1.0 mg/ml for both (20). The MBC value of *E. coli*, which was higher than *S. aureus*, was 4.0 mg/ml (20). The diameters of the inhibition zones for cinnamon against *E. coli* and *S. aureus* were 19.2 and 28.7 mm, respectively (20). The authors noted that after the addition of cinnamon, “severe morphological destruction” (20) was evident in both bacteria, demonstrating the herb’s ability to compromise the integrity of the membranes, leading to the death of the bacteria cells.

Bacteria

Bacteria, single celled microorganisms, can be classified into two different groups: gram positive and gram negative. As the name suggests, gram positive bacteria yield positive results in a gram stain test, which uses different cell wall constituents to differentiate between bacteria. As a result of the dense covering of peptidoglycan, a polymer that forms a layer outside of plasma membrane in most bacteria, this class stains violet in the gram stain test (3). On the other hand, gram negative bacteria give negative results when tested using a gram stain test. In this method of staining, the bacteria do not retain the violet stain, instead absorbing the color of the counterstain, resulting in a red stain for the test. This occurs because gram negative bacteria have a cell wall containing a thin layer of peptidoglycan (3). In this experiment, the gram positive

bacteria obtained for testing was *Staphylococcus epidermidis*, a coagulase-negative coccii bacteria. Despite its facultative anaerobic characteristics, *S. epidermidis* experiences more growth in aerobic settings. Because of its tendency to infect medical equipment and hospital environments, this organism is presently one of the leading microbial causes of “nosocomial” illnesses and is commonly known for harmful infections that usually surface on “intravascular devices,” prosthetics, implants, and extensive lacerations (4). It is known to be “one of the five significant microorganisms that are located on human skin and mucosal surfaces with the ability of causing nosocomial infections” (15). *S. epidermidis* has been claimed to cause septicemia, a condition known as blood poisoning, and endocarditis, inflammation of the valves of the heart. Due to its increase in resistance to usual medication, including benzylpenicillin and methicillin, this nosocomial pathogen has become a dangerous problem to hospital settings (4). Likewise, *Escherichia coli*, the gram negative bacteria used in this study to test the effectiveness of specific herbal oils as pathogen inhibitors, has become a problem due to its growing resistance to antibiotics. *E. coli*, a bacteria belonging to the Enterobacteriaceae family, is a rod-shaped and facultative pathogen. This bacteria, which possesses a cell wall enclosed with a plasma membrane, a thin peptidoglycan layer, and lipopolysaccharides located on the outmost layer, is commonly found in the intestines of mammals, where it assists in the processes of digestion, creation of vitamin K, and absorption of nutrients from food (11). *E. coli* may also be found in mammal excrements and in higher temperature settings, including hot springs. Although the microbe is used in human processes and may not typically be harmful to its host, some of its strains can cause illness in specific mammals; a common example is food

poisoning in humans caused by the *E. coli* O157:H7 strain, which is infective (11). Furthermore, mutations and evolutions of the bacteria have created new strains, some of which can cause harmful conditions, such as kidney failure and urinary tract infections (11). As mentioned above, its evolution has caused an increase and stronger resistance to antibiotics.

Importance of Study

Controversy exists over the use and effectiveness of herbal remedies. An area of discussion is the methodologies used to test for the efficacy of herbs. Many studies have used methods of emulsification of the essential oil into the media containing the bacteria in order to test for antibacterial effects. This study, however, demonstrates that incubation of media containing bacteria with the essential oil in a non-emulsified state was sufficient to study the efficacy of their active ingredients. The method used in this experiment introduces ideas for other testing procedures and applications of the essential oils. Another common argument states that herbs do not possess antibacterial properties and such belief is a result of cultural myths. Despite arguments stating the contrary, many herbs, as this experiment strongly suggests, do possess antibacterial properties. Such results could be beneficial to pharmaceutical companies and medical environments. Herbs found to bactericides could be used against bacteria and for treatment of bacterial illnesses. Furthermore, some argue that essential oils will only work on one group of bacteria. This study provides evidence that the chosen herbs worked against a bacteria classified as gram negative and another classified as gram positive. This is significant because it could provide healthcare facilities with one substance that could work against multiple types of bacteria. Moreover, those who

believe that herbs do not have medical significance often argue that they take an excessive amount of time to kill bacteria, and are therefore not beneficial for medical use. In this experiment, only 24 hours was necessary for antibacterial properties to be seen, demonstrating that herbs can be a quick and effective form of treatment. Overall, this study provides evidence on the efficacy of herbs and adds to the body of existing evidence that essential oils have antimicrobial properties.

Purpose

The purpose of this study is to test the antibacterial activities of oregano, tea tree, and cinnamon essential oils against the gram negative bacteria *Escherichia coli* and the gram positive bacteria *Staphylococcus epidermidis*.

Materials

The oil of oregano (*Origanum vulgare*), which contained extra virgin olive oil and was manufactured by Piping Rock Health Products, was purchased online. The tea tree (*Melaleuca alternifolia*) oil, distributed by the Vitamin Shoppe, and the cinnamon (*Cinnamomum zeylanicum*) oil, made in Sri Lanka and distributed by Lotus Brands, were purchased from the Vitamin Shoppe. The bacteria, along with all lab equipment (test tubes, glass vials, pipettes, bacterial plates, Bacti-Cinerator, and incubator), were obtained from the SUNY Orange Medical Laboratory Technology department.

Methods

Methods for Testing Oregano Oil

To begin, four glass vials were separated and marked for identification with the dilution that the vial was to contain and the herb that was being tested. The dilutions were 1:1, 1:2, 1:4, and 1:8. Sterile pipettes were used to transfer substances into the glass vials.

Ten drops of nutrient broth, a general medium that supports bacteria growth and is used for the maintenance of cultures, were added to the vials marked: oregano 1:2, oregano 1:4, and oregano 1:8. Then, ten drops of oregano oil were added to the 1:1 and 1:2 vials. Ten drops of the mixture in the 1:2 container were added to the broth in the vial labeled 1:4. Then, ten drops from the mixture present in the oregano 1:4 vial were added to the 1:8 vial. The mixture in the second vial, labelled oregano 1:2, was separated into layers, as it contained more oil than the other broth and oregano oil mixtures. The contents in vials 1:4 and 1:8 were able to emulsify and did not separate due to the lesser amount of oregano oil present in them. When this was completed (after the preparation of the mixtures in the vials), the contents in each vial were as follows: the 1:1 vial contained only the 10 drops of the oregano oil, the 1:2 vial was a mixture of 10 drops of oregano and 10 drops of nutrient broth, the 1:4 vial contained ten drops of the mixture in 1:2 combined with 10 drops of the broth, and the 1:8 vial was a mixture of ten drops taken from the 1:4 vial and the ten drops of broth. Ten drops of the content in vial 1:8 were removed to ensure that each vial had a similar volume. After the mixtures were completed, 2 drops of the bacteria (*Escherichia coli* or *Staphylococcus epidermidis* depending on the trial) were added to all four vials. The pure oregano oil was then plated to test that it did not contain any microbes or bacteria. Each pure bacteria was also plated (*E. coli* on MacConkey agar, a culture medium for bacteria designed for Gram-negative bacteria, and *S. epidermidis* on BBL Columbia agar, designed for Gram-positive bacteria) to ensure that growth for the bacteria was occurring. To plate the pure oregano oil, two drops of the essential oil was placed in an agar plate. A loop, which was sterilized by placing it into the Bacti-Cinerator for 5-7

seconds, was used to streak the drops across the plate. To plate the pure bacteria, a similar procedure was followed. First, the loop was sterilized using the Bacti-Cinerator. Then the cap for the bacteria vial was removed and the mouth of the tube was sterilized by rotating it in the Bacti-Cinerator. The loop was entered into the vial and after it was removed, the tube's mouth was sterilized again and capped. The loop, with the bacteria, was used to streak the agar. All the vial samples of oregano oil and the plates created for the pure oregano oil and bacteria were placed in a 37°C incubator for 24 hours.

Preparation of Experimental Oregano Oil Plates

After observing the testing plates, the dilutions of the oregano oil and the *E. coli* were observed.¹ The dilutions varied in appearance because of the different amounts of oil present in each.

The 1:1 dilution, containing only the oregano oil and the *E. coli*, hardly separated into layers, while the 1:2 dilution, consisting of oregano oil, broth, and the *E. coli*, did separate into distinct layers. The top layer of the dilution consisted of the oil, while the bottom layer was turbid, or cloudy due to large quantities of individual particles. Similar to the dilution just mentioned, the 1:4 mixture was also separated into two layers with a smaller top layer compared to the 1:2 dilution. The 1:8 had a thin oil layer, but mainly consisted of the bottom turbid layer. When plating the mixtures, the process used for the test plates was used. Before beginning the process, the dilutions were mixed and stirred to ensure that a proper sample was taken. After inserting the loop into the Bacti-Cinerator for sterilization, the cap for the 1:1 dilution was removed and the tube's mouth

¹ The mixtures for all of the oils (oregano, tea tree, and cinnamon) and both bacteria had very similar appearances to the description given for the oregano and *E. coli* mixtures.

was sterilized. The loop was inserted into the mixture, the tube's mouth was again sterilized, the cap was replaced, and the dilution was plated on BBL MacConkey agar. This process was repeated for each mixture, resulting in two plates per dilution. All the plates were kept in a 37°C incubator for 24 hours. The test tubes containing the mixtures were stored at room temperature.

Carrier Oil Trials

Because the oregano oil that was used in this study came in a carrier oil, olive oil, a separate experiment was conducted to verify that the carrier was not impacting the results and the oregano oil was, in fact, the bactericide. The same procedure mentioned was used to test the olive oil for verification. The olive oil was diluted, using nutrient broth, to result in 4 different dilutions: 1:1, 1:2, 1:4, and 1:8. Ten drops of *E. coli* were added to each dilution and ten drops of *S. epidermidis* were added to another set of the dilutions. The mixtures were plated twice and left in a 37°C incubator for 24 hours.

Methods for Testing Tea Tree Oil

The procedure mentioned above, used for oregano and olive oil, was also used to test tea tree oil against *E. coli* and *S. epidermidis*. After testing the tea tree oil and ensuring that it was pure and able to be used for the experiment, two sets of the dilutions were created. The dilutions, like the ones previously stated, were created using nutrient broth; 4 concentrations were made: 1:1, 1:2, 1:4, and 1:8. One of the dilution sets was used for the testing of tea tree oil against *E. coli*, while the gram-positive *S. epidermidis* bacteria was added to the other set. Each dilution received ten drops of the assigned bacteria and was placed in the incubator overnight. The mixtures were then plated and incubated, at 37°C, overnight.

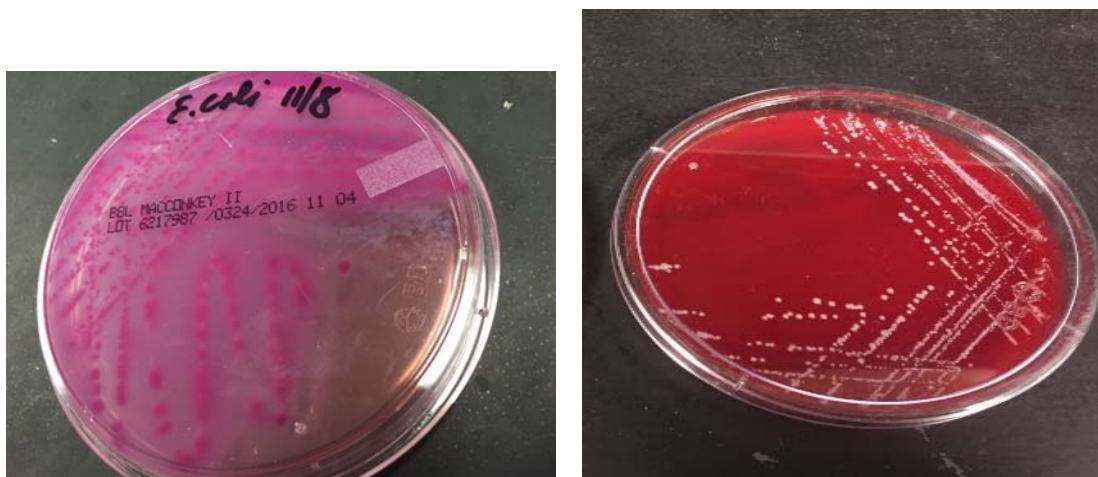
Methods for the Testing of Cinnamon Oil

The same experimental design, involving the two sets of the 1:1, 1:2, 1:4, and 1:8 dilutions and the ten drops of the assigned bacteria, was followed for the cinnamon oil trials. After overnight incubation at 37°C, the plated mixtures were removed and observed.

Results

Results of Testing Plates

The testing plates containing the oregano, tea tree, and cinnamon oils were clear of any bacteria, which demonstrated that the essential oils did not contain any microbes. On the other hand, as expected, both bacteria testing plates, contained bacteria. The *E. coli* (left), and the *S. epidermidis* (right) plates are shown below:



Because the bacteria plates demonstrated the correct results, they were used as the control; the experimental plates were compared to them to determine bacterial growth. To prevent excessive drying, the plates were left at room temperature.

Results of Oregano Oil

Oregano oil did well against *E.coli*; both plates of the 1:1, 1:2, and 1:4 mixtures did not demonstrate bacterial growth, as shown below respectively.





On the other hand, the 1:8 dilution demonstrated various colonies of bacteria on the outer edges of the plate:



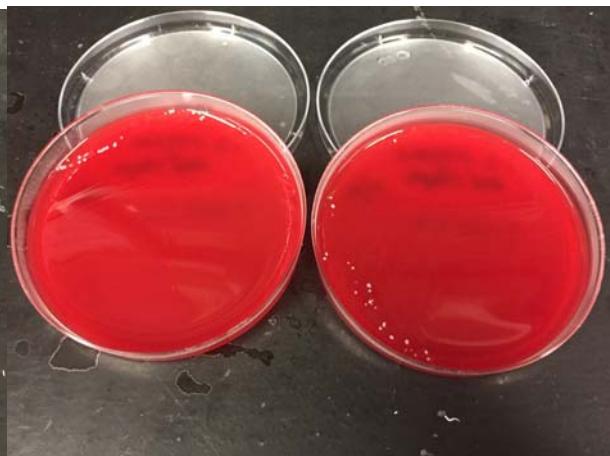
Furthermore, the oregano oil was not as successful against *S. epidermidis* as against *E.coli*. Although the pure oil resulted in no growth, all other dilutions were ineffective in prohibiting bacterial growth.

1:1 dilution



*Clear plate- no bacteria growth²

1:2 dilution



*Bacteria present in both plates³

1:4 dilution



1:8 dilution



² A clear plate demonstrates that no bacteria growth is present, which suggests that, at the specific dilution, the oil used is an antibacterial agent.

³ A plate containing bacteria demonstrates that the dilution of the oil was not strong enough to inhibit the complete growth of bacteria.

*Bacteria present in both plates

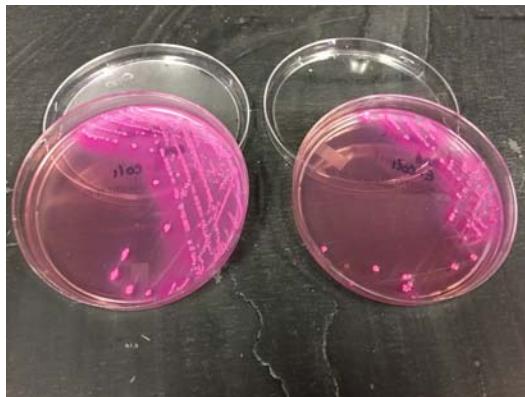
*Bacteria present in both plates

Results of Carrier Oil Trials

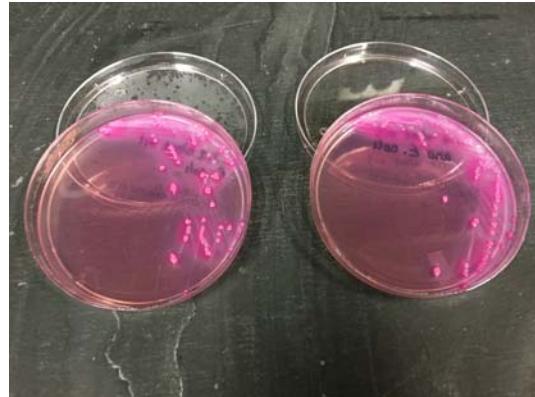
The results, which were as expected, are displayed below:

Olive oil and *E. coli*

1:1



1:2



*Plate is not clear- moderate growth present
plates

*Moderate growth present in both

1:4



*Moderate growth present in all plates

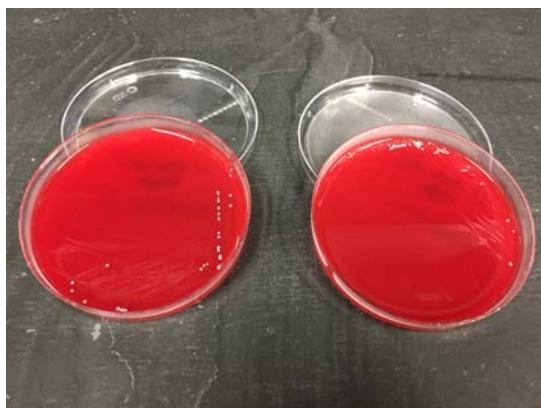
1:8



*Growth present in both plates

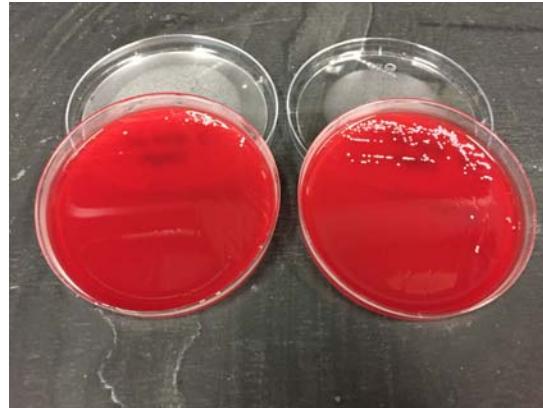
Olive oil and *S. epidermidis*

1:1



*Unclear plate- growth present

1:2



*Growth present

1:4



*Growth present

1:8



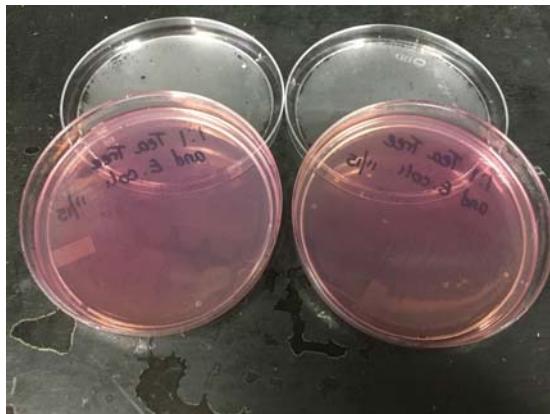
*Growth present

Results of Tea Tree Oil

Tea tree oil was a strong disinfectant, inhibiting the complete growth of all dilutions for both the gram negative *E.coli* and the gram positive *S.epidermidis* bacteria.

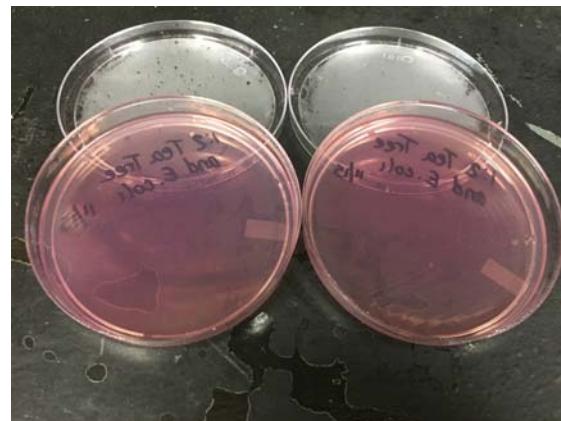
Results for the mixtures of tea tree oil and *E.coli* are presented below:

1:1 dilution



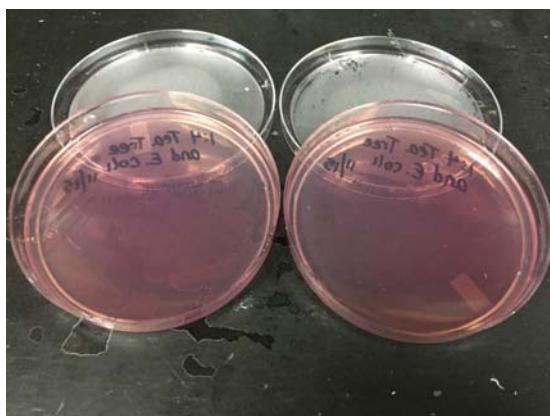
*Clear plates- no bacteria growth

1:2 dilution



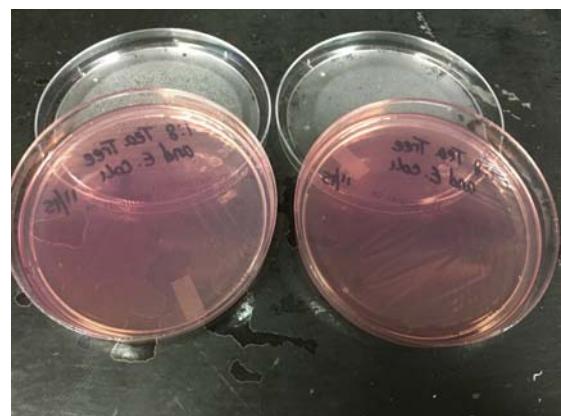
*Clear plates- no bacteria growth

1:4 dilution



*Clear plates- no bacteria growth

1:8 dilution



*Clear plates- no bacteria growth

Similar results against *S. epidermidis* were found and are shown below:

1:1 dilution



*Clear plates- no bacteria growth

1:2 dilution



*Clear plates- no bacteria growth

1:4 dilution



*Clear plates- no bacteria growth

1:8 dilution

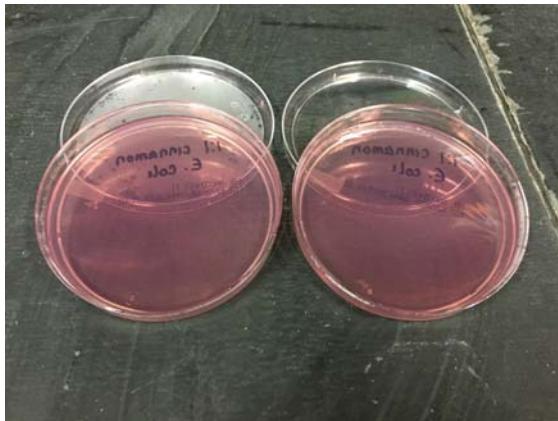


*Clear plates- no bacteria growth

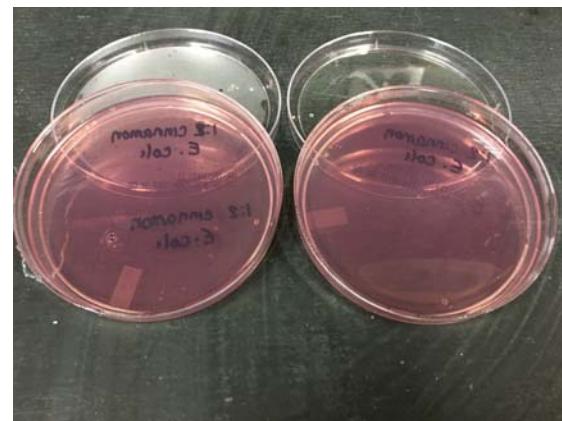
Results of Cinnamon Oil

Cinnamon was a powerful bactericide, as it inhibited growth for both bacteria in all dilutions. The results against *E. coli* are depicted below:

1:1 dilution



1:2 dilution



*Clear plates- no bacteria growth

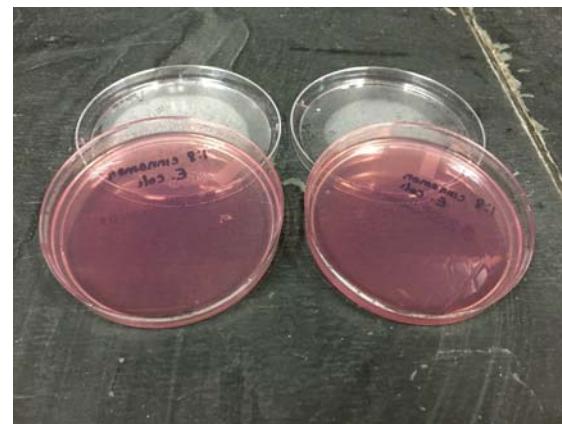
*Clear plates- no bacteria growth

1:4 dilution



*Clear plates- no bacteria growth

1:8 dilution



*Clear plates- no bacteria growth

The results against *S. epidermidis* are presented below:

1:1 dilution



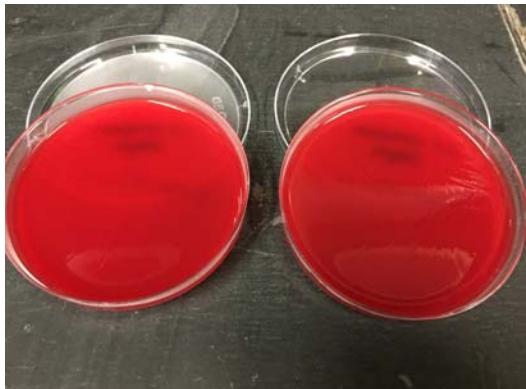
*Clear plates- no bacteria growth

1:2 dilution ⁴



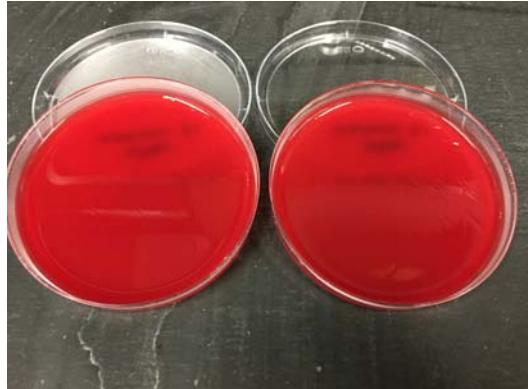
*Clear plates- no bacteria growth

1:4 dilution



*Clear plates- no bacteria growth

1:8 dilution



*Clear plates- no bacteria growth

⁴ *Note: the discoloration seen in one of the 1:2 dilution plates is not bacteria; it is a result of a contaminated plate and does not affect the results of the trial.

Results of the experiments are summarized in the following table:

Oregano Oil Dilutions	1:1	1:2	1:4	1:8
Effect on Staph. epidermidis	No growth	Mild growth*	Mild growth	Moderate growth**
Effect on E. coli	No growth	No growth	No growth	Mild growth

Olive Oil Dilutions	1:1	1:2	1:4	1:8
Effect on Staph. epidermidis	Mild growth	Moderate growth	Moderate growth	Moderate growth
Effect on E. coli	Moderate growth	Moderate growth	Moderate growth	Moderate growth

Tea Tree Oil Dilutions	1:1	1:2	1:4	1:8
Effect on Staph. epidermidis	No growth	No growth	No growth	No growth
Effect on E. coli	No growth	No growth	No growth	No growth

Cinnamon Oil	1:1	1:2	1:4	1:8
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Dilutions				
Effect on <i>Staph. epidermidis</i>	No growth	No growth	No growth	No growth
Effect on <i>E. coli</i>	No growth	No growth	No growth	No growth

*Mild growth considered to be scattered individual colonies.

**Moderate growth considered to be streaks of colonies.

Discussion

In this study, the effects of oregano, tea tree, and cinnamon oils were tested against *E. coli* and *S. epidermidis*. The results for the experiments were generally as expected and support the hypothesis that the chosen herbal oils have antibacterial properties. Tea tree and cinnamon demonstrated exceptional results against both bacteria, even at their lowest dilution. Each of the plated mixtures, ranging from 1:1 to 1:8 dilutions, remained clear when removed from the incubator after 24 hours, demonstrating that both oils are bactericides, and supporting the hypothesis. The success of the tea tree and cinnamon oils were due to their potent active ingredients, including terpinen-4-ol for tea tree oil and cinnamaldehyde, known for its ability to destroy a bacteria's cell wall, for cinnamon oil among other ingredients. Oregano oil, on the other hand, did not demonstrate such outcomes. Unlike the other herbal agents, oregano was only a successful bactericide at higher concentrations. When tested against gram negative *E. coli*, the lowest dilution,

1:8, was unsuccessful in eliminating the bacteria. When used as a decontaminating agent against the gram positive *S. epidermidis*, it demonstrated worse results, with only the 1:1 dilution being a successful bactericide. All other dilutions were unable to inhibit microbial growth. To ensure that the oregano was responsible for the antibacterial properties demonstrated in the oregano trials, its carrier oil, olive oil, was tested. The result of the olive oil trials demonstrated that the oil did not possess the antibacterial properties necessary to inhibit the complete growth of the bacteria, at the highest concentration. However, because less bacterial colonies grew on plates of higher olive oil dilutions compared to lower ones, this oil did seem to have a weakened inhibitory effect. The carrier oil may be partly responsible for the antibacterial effect in the oregano trials by producing conditions that make achieving growth not impossible, but more difficult. Nevertheless, based on the results, the active ingredients in oregano appear to be the preeminent contributors to the bactericidal effect presented. The 1:1 dilution of olive oil remained unable to inhibit complete growth while the stronger dilutions of oregano were, demonstrating that any antibacterial effect in the mixtures resulted from the oregano oil, not the carrier oil. Although oregano has powerful active ingredients including carvacrol and thymol, it may have produced weaker results because the oil chosen for this experiment was previously diluted with olive oil. As a result, the already diluted oregano oil was further diluted with nutrient broth, making the active ingredients less potent and concentrated than those in the tea tree and cinnamon oils.

Limitations

A limitation of this study, as noted above, is that the true effectiveness of pure oregano oil was not tested: only a diluted version was. Another limitation is that the true extent of

the inhibitory effect of olive oil was not tested in repeated trials; the reason for the carrier trials was only to demonstrate that oregano was the bactericide.

Conclusion

The tea tree and cinnamon oils were the most effective against gram negative *E. coli* and gram positive *S. epidermidis*, as they both inhibited, at every dilution, the complete growth of the bacteria. The oil that performed the worst was the oregano. Although it did inhibit the growth of both bacteria at higher dilutions, the oregano oil was unable to stop growth for the *E. coli* at the 1:8 dilution and was not strong enough to inhibit growth of *S. epidermidis* at the 1:2, 1:4, and 1:8 dilutions. Despite oregano's results, all three oils demonstrated antibacterial properties and are promising natural substances suitable for antimicrobial use. These products are effective and affordable, making them perfect candidates for medicinal use, specifically in the pharmaceutical industry. However, if the essential oils are chosen as a means of medication, correct concentrations will need to be focused on, as their effectiveness is dependent on concentration in some cases. However, in order to ensure the effectiveness of the herbs on humans, studies need to be conducted on them. Overall, this study demonstrated that the essential oils from oregano, tea tree, and cinnamon herbs are bactericides.

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Kathryn Colombo

Melville: Humorist in Revolt

Bergen Community College

Panel: Literature

Mentor: Professor Geoffrey Sadock

Melville: Humorist in Revolt

Comedy in America is often seen as partaking in a great debate between satiric and amiable humor. While a biting, deceitful humor was often employed to satirize otherwise sacred ideals and present legitimate criticism, this alienated the reader and left him with the struggle of deciding in whom he should believe. More genial humor was indeed very entertaining and allowed for the harmonization of differing ideologies, but it was also prone to obscuring societal evils and stimulated unjustified optimism. However, in striking a balance between satire and amiability, Herman Melville is able to present his criticisms of society—namely, that strict adherence to authority is a destructive force and should be met with skepticism and reason—in such a way that is both poignant and humorous. Among his works, none so aptly demonstrate this as *Billy Budd*. In the following analysis, I shall explore this formidable achievement by focusing on the comedic culture in America at the time of Melville's writing, the content and philosophy of Melville's novel, and the role of both satire and amiable humor in contributing to the success of the work.

Prior to discussing Melville specifically, it is worth discussing the nature of humor in American literature. According to John Bryant, the comic debate between satire and humor originates in the 1800 periodical “*Salmagundi*”, in which Washington Irving's satirical character Langstaff alternates with James Kirke Paulding's more genial Evergreen to represent the poles of satire and humor (27). While satire acted to criticize society, it simultaneously promoted cynicism. Amiable humor, though it promoted optimism, also obscured the issues to be addressed. Thus, in democratic America, both

satire and humor are necessary, the one to correct and the other to entertain and alleviate the difficulty of the discussion. The struggle therefore was in achieving a balance.

To satirize successfully should allow the satirist to mock an untouchable ideal. This ability of mocking the otherwise invincible is derived from the nature of satire itself and from the protection which satire offers to the satirist. According to scholar Frank Palmeri, “Instead of expressing its vision directly, like those forms whose purpose is to praise, satiric narrative works indirectly through parodic alteration of celebratory forms, established discourses, and dogmatic pronouncements” (Palmeri 1). As a result of this indirect method of critique, satirists could remain fairly distant from the complaints which they issue. However, with such an ability at their disposal, this also demanded that satirists take on a certain level of responsibility. According to scholar Jesse Bier, “Turning the culture back upon itself demands the most sane and scrupulous comic art as well as the most serious intentions” (Bier 366). This is exceptionally true of Herman Melville, as his prolific use of satire is exclusively to present his genuine and justifiable criticisms of society. However, satire alone does not allow such criticisms to be palatable to the audience. Melville, according to John Bryant, was somewhat infamous for needing to “tone down the sting of satire” (54) and therefore also employs amiable humor. In doing this, he strikes a successful balance between the two. The following analysis shall demonstrate this balance as it may be found in his last work, *Billy Budd*.

In Melville’s *Billy Budd*, satire plays a necessary role in demonstrating Melville’s criticisms of society. The most poignant example of such criticism is Melville’s thoughts

on authority, namely that it should not be followed blindly or without skepticism. While there is a plethora of evidence for this, much of which is well worth examination, for the purposes of this paper, I shall be focusing solely on the instances in which satire is employed to make this point. On the issue of satire as it pertains to the theme, the use of such a comic device is made clear to the audience through three distinctive vehicles: the satiric nature of the narration, the fate of Captain Vere, and the titular character's capacity to be simultaneously barbaric, sheltered, and utterly free of sin.

The discussions on authority as provided by the narrator are often self-aware in nature and far from objective. One example of such narration occurs when describing the nature of naval officers as commanders of great authority. As the narrator states, "In their general bearing and conduct the commissioned officers of a warship naturally take their tone from the commander, that is if he have that ascendancy of character that ought to be his" (Melville 21). Essentially, in stating this, the narrator demonstrates that while it is expected that the ship's crew follow their commander or captain, they have no reason to if he is not fit for the role. However, this can easily be read as a satirical comment in that, according to the laws governing naval practices, the men aboard the man-of-war have no choice but to follow their captain, regardless of their opinion of him and whether he does indeed possess such an "ascendancy of character". A similar instance of such satire occurs as the narrator discusses the issue of impressment and those less fit for joining the royal navy, due to some legal transgression, being accepted into the ranks. While a lengthy and meandering passage, it is worth relaying in full:

Such sanctioned irregularities, which for obvious reasons the government would

hardly think to parade at the time and which consequently, and as affecting the least influential class of mankind, have all but dropped into oblivion, lend color to something for the truth whereof I do not vouch, and hence have some scruple in stating; something I remember having seen in print, though the book I cannot recall; but the same thing was personally communicated to me now more than forty years ago by an old pensioner in a cocked hat with whom I had a most interesting talk on the terrace at Greenwich, a Baltimore Negro, a Trafalgar of hands whose speedy sailing was imperative, the deficient quota, in lack of any other way of making it good, would be eked out by drafts culled direct from the jails. For reasons previously suggested it would not perhaps be easy at the present day directly to prove or disprove the allegation. But allowed as a verity, how significant would it be of England's straits at the time, confronted by those wars which like a flight of harpies rose shrieking from the din and dust of the fallen Bastille. (Melville 27)

Coupled with a Cervantes-esque passing of the buck, this claim reads as both critical and sardonic. While the narrator refuses any ownership of the information in stating that he does not vouch for its veracity, he proceeds in using it as a point of criticism against the armed forces, which is, once again a source of nothing but the forced following of authority. The satire here is necessary in communicating this point, though it does remove some of the narrator's credibility in that the main point of contention comes from hearsay, as it serves to protect the author against making slanderous claims against the royal navy.

However, criticisms of authority, while they are most pertinent to the happenings of the novel, do not end with the blind following of officers in the armed forces. This criticism extends to the authority held by science, the law, the government, and even to the highest of authorities, God himself. In terms of Melville's criticisms of science, this is mostly pertaining to the science of psychology. Though it was an entirely new field at the time of Melville's authorship, it was still considered a science nonetheless and thus a source of authority in that the practitioners of said science claimed a special knowledge and expertise that should be followed by the general public. Melville's criticism of this sort of authority is also made clear through the narrator, as the narrator states:

Who in the rainbow can show the line where the violet tint ends and the orange tint begins? Distinctly we see the difference of the colors, but when exactly does the one first blindingly enter into the other? So with sanity and insanity. In pronounced cases, there is no question about them. But in some supposed cases, in various degrees supposedly less pronounced, to draw the exact line of demarcation few will undertake—though for a fee some professional experts will. There is nothing namable but that some men will undertake to do it for pay.

(Melville 62)

While the assertions on the line between sanity and insanity are fair, and while there is a clear recognition of the expertise required to draw such a line, the narrator also makes clear the opinion that such an undertaking is not always attempted by those fit for the job. Herein lies the farce as, according to the narrator, men will do anything for money,

even that for which they are unqualified. This demonstrates a measure of distrust for the science and therefore a call for reason and skepticism from the public when met with potentially unfounded claims, namely the ability to find insanity in seemingly sane people. However, such a call for reason is, understandably, a difficult plea to make without the use of satire, as it asks that the public—made up entirely of non-experts—question the knowledge and capacity of professionals. Generally speaking, people are wont to trust the professional opinion in any subject on which they themselves lack significant knowledge. Thus, by arguing in favor of skepticism, Melville is questioning a deeply held belief, an action which is largely unpopular. Making such an argument through the veil of satire allows this otherwise offensive point to be more acceptable.

Similarly, regarding Melville's criticism of the blind acceptance of the law and government, he utilizes the self-aware and digressing narrator to raise several points of contention. This is made apparent as the narrator addresses the issue of punishing the protagonist, Billy, for accidentally killing his commanding officer and nemesis, the master-at-arms John Claggart. After the accidental homicide, the captain requires that the crime remain a secret from the crew and confines all discussions of it the location of the act. While those privy to the crime may not speak of it nor discuss any opinions on the captain's handling of the matter, the narrator most assuredly does. As the narrator states, "...in these particulars lurked some resemblance to the policy adopted in those tragedies of the palace which have occurred more than once in the capital founded by Peter the Barbarian" (Melville 63). Peter the Barbarian is a pejorative title given to the first czar and late emperor Peter I of Russia. This is significant as, according to scholar

David Padilla, it presents a demonstration of “d disdain for Peter’s often repressive measures against his own people including heavy taxation, forced labor, and expansion of feudal policies”. In comparing the laws governing the navy to these oppressive practices, Melville bleakly satirizes the oppressive and unilateral nature of said laws. Essentially, he criticizes the practice of disallowing critical thinking and individual judgement as it pertains to the matter of disciplining and punishing enlisted men. The satire is once again a necessity in protecting the author from criticism or legal consequences for raising such complaints. A similar example of such criticism, though notably less dismal, can be found in the naming of the ships, which is relevant to the narration as it is indeed the narrator who introduces the audiences to these vessels. The original ship on which Billy sails is called “The Rights of Man”, however he is impressed and forced to join the crew on the man-of-war at the beginning of the novel. The name of the man-of-war changes depending on which edition of the novel is to be considered, however it is either called “The Indomitable” or “The Bellipotent”, both which suggest that the ship will a powerful force in times of war. Because war is an action exclusively levied by the government and because the ship is owned by the crown, it is reasonable to interpret that the man-of-war can act as a representative of government authority. In calling the original merchant ship “The Rights of Man” and forcing Billy to abandon his ship through impressment, Melville slyly tips his cap to the audience and in essence demonstrates that the government is acting as a force which can and does strip away the rights of the people. In this satiric naming of the ships, Melville is able to make this point but does so from a protected distance, once again shielding himself with comedy.

While protection from the law when levying potentially offensive complaints is a primary function of satire, it is also necessary to recognize the importance of satire in attempting to criticize widely-held and impassioned beliefs. One such form of beliefs is that of the authority held by religion. The narrator raises such criticisms several times throughout the work. One example of this occurs as the narrator states:

Bluntly put, a chaplain is the minister of the Prince of Peace serving in the host of the God of War—Mars. As such he is as incongruous as that musket of Blücher, etc., at Christmas. Why then is he there? Because he indirectly sub-serves the purpose attested by the cannon; because too he lends the sanction of the religion of the meek to that which practically is the abrogation of everything but brute force. (Melville 80)

Blunt indeed. The criticism of the church in this passage is clearly stated: the religious beliefs which the church claims to uphold are being used to justify actions which are in direct violation of the religion itself, namely to kill. Similarly, it is satirical in and of itself to discuss the role of the chaplain onboard a warship, especially in terms of the musket—specifically that of General Blücher from the Napoleonic wars—at Christmas, as this would imply that the chaplain is as out of place on the ship as a weapon during Christmas mass. With this in mind, all following satirical references to this practice, and by extension the criticisms thereof, become clear. One such instance of this occurs when describing the ineffectiveness of the chaplain in delivering peace to Billy before his execution. As the narrator states, “...the minister of Christ, though receiving his stipend from Mars had no consolation to proffer which could result in a peace

transcending that which he beheld" (Melville 78). Here, the author simultaneously pokes fun at the chaplain in rendering him useless at serving his only function throughout the novel and also reiterates his concern for the role which the church is allowed to play in justifying war. He successfully demonstrates the fallible nature of men attempting to serve God—therefore discrediting their capacity to hold positions of authority—and criticizes the church itself for its hypocrisy, once again discrediting the church's level of authority over the people, both on land and at sea.

The final and most condemning criticism both for the church and the blind adherence to authority in the novel is presented in the ironic nature of Captain Vere's death. Sometime after deciding to execute Billy, as a result of his need to obey the authority of the law rather than his own best judgement and conscience, Vere is struck by a musket ball during a conflict with an enemy ship and later dies ashore murmuring the name "Billy Budd". The name of the enemy ship is the "Athéiste", the French word for "atheist". The name of the ship is significant in this instance as "atheist" in any context refers to one who does not believe in God, and therefore one who rejects any authority that God is considered to have on humanity. Thus, Captain Vere, the man who struggles with his conscience and allows his strict obedience of authority to dictate his decision making, is vanquished by "the atheist", a representative of a philosophy which acts as the ultimate disregard for authority. The irony abounds in the nature of the captain's death, clearly, and it does so by necessity. Criticism of religion, especially criticism of God, is largely unpopular. Thus, once again, satire serves to shield the critic—in this case, Melville—from any repercussions of his criticisms.

Another layer is added to Melville's critique as he not only criticizes the ubiquitous nature of authority in society, he also offers a character who acts as the product of said authority. Billy Budd is an orphan who spends almost his entire life as a sailor. As such, he is perpetually governed, which the narrator does not hesitate to point out. Melville writes:

And what could Billy know of man except of man as a mere sailor? And the old-fashioned sailor, the veritable man-before-the-mast...Yes, as a class, sailors are in character a juvenile race. Even their deviations are marked by juvenility. And this more especially holding true with the sailors of Billy's time. Then, too, certain things which apply to all sailors do more pointedly operate here and there upon the junior one. Every sailor, too, is accustomed to obey orders without debating them; his life afloat is externally ruled for him...(47)

Here, the narrator describes the effects of one's life being governed entirely by an outside source. Those coming of age under such conditions lack "finesse" and are incapable of playing the "intricate game of chess" that is nuance and social interaction. Billy, having spent his whole life under this external rule, experiences these effects tenfold. He is naïve and innocent, unable to see through the guise of pleasant words offered to him by his chief antagonist. In this way, he is sheltered against the difficulties of critical thinking and dissuaded from exercising skepticism. Obedience without question is therefore an admirable quality aboard the ship. However, unfortunately for Billy, it is this selfsame unquestioning obedience which betrays him. First, because Billy himself is blindly obedient to authority and because he does not possess the capacity to

recognize Claggart's unreasonable disdain for him, Billy is not suspicious of him until after someone else points out Claggart's opinion. Similarly, Billy is constantly infantilized as he is often referred to as "Baby Bud". This infantilizing of the character only furthers the audience's understanding of his innocence and naïveté. Furthermore, because of Vere's unrelenting adherence to authority, Billy is ultimately executed.

On a more symbolic level, is Billy's most noticeable flaw: his stutter. Billy has difficulty expressing himself when he is upset, as another character mockingly points out, "Well, something must have been the matter for you st-st-stuttered" (Melville 43). As a result, Billy becomes known for handling conflicts by physical means rather than attempting to reason through them. One example of this occurs much earlier in the narrative as Billy's original captain, Captain Graveling describes a fight between Billy and Red Whiskers, a fellow sailor aboard the Rights of Man who disliked Billy, seemingly for no reason. Graveling gives his account of the incident by stating, "Quick as lightning, Billy let fly his arm. I dare say he never meant to do quite as much as he did, but anyhow he gave the burly fool a terrible drubbing...And will you believe it, Lieutenant, the Red Whiskers now really loves Billy" (Melville 9). Clearly, much as the narrator describes, Billy is among the ranks of sailors who favors straightforwardness over finesse. Antagonist John Claggart, on the other hand, has no such difficulty with tact and frequently uses pleasant interactions to hide his darker intentions. One instance of this is when Billy accidentally spills soup in front of Claggart. Originally, Claggart has no reaction to the soup until he notices that Billy is the one who spilled it. The narrator states, "His countenance changed. Pausing, he was about to ejaculate

something hasty at the sailor, but checked himself...[he said,] ‘Handsomely done, my lad! And handsome is as handsome did it too!’” (Melville 33). In this passage, Claggart demonstrates his ability to hide his animosity toward Billy by making the encounter seem playful and flippant. It is this ability to disguise his feelings with words, this finesse, which allows Claggart to accuse Billy of mutiny (without being suspected of doing so out of spite) and thus incite conflict. Billy’s response to this conflict is, in accordance with Billy’s character, brutish and unpolished; he does all that he is able to do in this situation, and strikes Claggart, ending his life. Furthermore, Claggart undoubtedly represents authority as he is the master-at-arms on the ship, a position which serves to police the sailors and acts as the most direct position of authority over the men in the chain of command. He similarly represents a lack of governance, because, while it is illegal for him to do so, he still acts outside of the authority of the captain. Thus, Billy’s bluntness and juvenility, as represented by and manifested in his stutter, are ultimately the traits which end his life. Furthermore, this occurs in response to a plan executed by Claggart, a character which represents relatively unrestricted and malevolent authority. Therefore, Billy’s entire character acts to satirize the blind obedience of authority. He is obedient and unquestioning, even in the face of malevolent authority, but he is developmentally stunted and, ultimately, killed as a result of this. Therefore, the author utilizes the character of Billy Budd to represent the product of constant obedience, and his fate serves to present the dangers of such obedience. This serves to viciously mock the nature of authority met without skepticism. The satire is unquestionable.

However, satire alone does not necessarily make for an entertaining or pleasant read. It must also be approachable. Herein lies the importance of introducing amiable humor. For Melville, this is done primarily through the narration. As scholar Jesse Bier observes in *Moby Dick*, another of Melville's novels, "He provides an extended, offhand and otherwise humorous admission, as of hostility, and it is not really contrite. To this subtle and paradoxical confession, Ishmael adds the force of universality, a quick and disarming comic defense" (377). The same method of introducing this amiable comic defense occurs in *Billy Budd*. Immediately after discussing the gruesome events of a historical mutiny, Melville lightens the mood by allowing his narrator a playful digression.

He writes:

In this matter of writing, resolve as one may to keep to the main road, some bypaths have an enticement not readily to be withheld. I am going to err into such a bypath. If the reader will keep me company I shall be glad. At the least we can promise ourselves that pleasure which is wickedly said to be in sinning, for a literary sin the divergence will be. (Melville 18)

In this passage, Melville performs precisely the same act of reintroducing the approachable, friendly narrator and literally invites the reader to stop focusing on the tragedies of the previous page, although he never apologizes for presenting these atrocities. He also promises to deliver the "pleasure" of "literary sin" in the digression to come. This disarms the reader and allows the him to trust the narrator, even though he has just been exposed to an unpleasant account of violence.

Similarly, Melville frequently interrupts himself with digressions to soften the blow

of tragic events. For example, after Billy's execution, Melville launches into yet another digression between the purser and the surgeon on the ship as they discuss the scientific relevance of Billy's lack of movement after he is hanged, which marks his death as being more dignified. This digression once again serves to distract the reader from the unpleasantness of the dead hero. However, while this scene acts as a distraction, it also calls attention to the goodness of Billy's nature and his likeability. This is because the purser hypothesizes that Billy's lack of movement could be attributed to his boldness and strength of character. He states, "What testimony to the force lodged in will power" (Melville 82). Granted, the purser is quickly dismissed by the surgeon, who explains that it is impossible to determine what allowed Billy to keep his dignity in dying. However, the digression is still a welcomed relief from the dismal end of Billy's life.

However, while the narration acts to alleviate the weight of many of the darker scenes, it also presents a self-aware commentary on the happenings of the novel. This, once again, serves to make the novel more approachable and more genial, so as to allow the reader to be more receptive to the overarching message. One example of this occurs in the narrator's description of Billy, as the narrator states, "The avowal of such an imperfection in the Handsome Sailor should be evidence not alone that he is not presented as a conventional hero, but also that the story in which he is the main figure is no romance" (Melville 15). By commentating on the novel, the narrator intentionally removes the suspension of the reader's disbelief, comically and only momentarily. This serves to distance the reader from the novel and therefore allows the reader to be separated from the otherwise unrelenting satire throughout the work and shielding the

reader from attack, thus making the experience more entertaining and less offensive.

Melville offers a similar break from the realism of the work after Billy's at-sea burial, in which the narrator offers a commentary not only on the novel itself but on the nature of writing. Melville writes, "The symmetry of form attainable in pure fiction cannot so readily be achieved in a narration essentially having less to do with fable than with fact...hence the conclusion of such a narration is apt to be less finished than an architectural finial" (87). This essentially serves to excuse the novel from seeming unfinished after Billy's death, as the author concludes several chapters later by discussing the fate of Captain Vere and the posthumous fame Billy garnered among the men aboard "the Indomitable". This once again distances the reader from the tragedy of Billy's death and allows the author to reiterate the themes of the novel once again, and to do so without attacking the reader in his satire.

While the use of satire and amiable humor is prolific in Melville's *Billy Budd*, the question remains: was this use of humor successful? Because Melville's wife found multiple manuscripts for *Billy Budd* in his desk after his death in 1891, and the manuscripts were not published until the "Melville revival", thirty-three years later (Allen 130), it is difficult to say whether the work would have impressed his intended audience. However, shortly after its publication in 1924, *Billy Budd* was indeed canonized alongside *Moby Dick* as a literary masterpiece and has remained a highly regarded work (Parker).

Comedy is undoubtedly a double-edged sword, but Melville wields it skillfully as he presents his criticisms of society in such a way that is both poignant and

entertaining. While satire is an effective comedic tool in delivering criticism, alone it is aggressive and leaves the reader distrusting. Amiable humor, however, presents a different difficulty in that it may obscure the very issues the author wishes to discuss. In his novel *Billy Budd*, Melville addresses these difficulties effectively by balancing his vicious satire on unquestioning acceptance and the dangers of unopposed authority, a feat which makes the work both admirable and timeless. Ultimately, a balanced use of these styles of humor is necessary to effectively present social criticisms both throughout history and in the modern day.

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Emma Trebel

Dementia ≠ Disenfranchisement

Montgomery College

Panel: Political Science

Mentor: Professor Effie Siegel

Dementia ≠ Disenfranchisement

It's November of 2000, and 87-year-old Florida resident Herman Barnes is off to the polls with his wife Loretta. He has been looking forward to election day for weeks, but he's not planning on voting for anyone on the ballot, or even a write-in candidate. His mental faculties have been deteriorating due to advanced dementia-- Herman believes it is 1942, and he is an adamant FDR supporter. Loretta is allowed inside the polling booth to "assist" him, so when he refuses to choose a candidate who is still alive, she gives up and fills in her own choice under his name. Although their names and ages may be fictionalized, this story itself is very much true and was featured in a *Washington Post* article by journalist Shankar Vedantam. Herman is only one of thousands of voters suffering from various forms of dementia. As the massive generation of baby boomers reaches old age, politicians are gearing up to protect their Social Security and Medicare. In addition, politicians recognize the opportunity for substantial support at the polls from these elders and retirees.

It may be easier to alleviate arthritis and bad knees, but there is currently no cure or treatment for the 14% of those 71 and older with dementia, or approximately 3.4 million people (Plassman et al.). The disease comes with complications of its own for the afflicted and their loved ones, and much has been done to fund research to slow its progress or make life more bearable, but researchers and policymakers have only recently begun to examine the political consequences of this upcoming epidemic. Should Americans with dementia retain their right to vote? Many argue that voting is a right guaranteed to all citizens regardless of their intelligence, capability, or competence level, and cannot be revoked on these grounds. On the other hand, dementia patients

can easily be manipulated (with good or bad intentions) by family members, caretakers, and voting assistants, whether through mail-in ballots or on election day. Moreover, how much should someone be trusted to choose our next president when they struggle to recall their own children's names?

The issue of voters with dementia may seem insignificant compared to other political controversies or scandals, but this demographic is certainly capable of effectively impacting the results of the election. For instance, the vote "Mrs. Barnes" cast for her husband could have been one of 591 votes that separated G. W. Bush's and Al Gore's popular votes in Florida, which could have led either one to the White House. The state and its hefty number of electoral votes is notorious for other reasons as well, but given its popularity as a retirement location, any number of votes could have been cast by uninformed dementia voters or their fraudulent absentee ballots. Furthermore, voters with dementia could strongly influence the outcome of local elections as well, where the small pool of voters can be easily saturated with dementia patients. The turnout rate for elderly voters in all elections is significantly higher than that of their younger peers, and in some residential care facilities, patients are bussed to the local voting place as an outing or activity just like they would to a concert or play (Vedantam; Drachman). Voters 65 and older are also the most likely to use absentee ballots, which creates an opportunity for fraud via dementia sufferers (Karlawish et al.).

The issue of voters with dementia has been debated for a few years now, and various parties have come to their own conclusions and solutions. A team of highly respected dementia specialists and professionals, including UPenn professor and director of the Neurodegenerative Disease Ethics program Dr. Jason Karlawish, have

done extensive research and testing on the subject. Their studies have been reviewed, expanded upon, and copied by others in their field who have found the same results, correlations, and verdict: dementia sufferers should retain their right to vote unless they cannot demonstrate adequate voting competence, measured by a standardized set of basic questions about the election process. The idea has not yet been adopted by any state or local election boards, but its recommendations have been carefully thought out to preserve the right to vote for as many competent voters as possible.

What *is* dementia, anyway? Although the risk of dementia certainly increases with age, not all elderly people will suffer from dementia, nor is it exclusive to this age group. As with many other geriatric conditions, it is not a pathogen or communicable disease that can be avoided with disinfectants or vaccines. Rather, it is caused by a wearing down of brain cells due to plaque buildup or trauma such as a stroke. This damage prevents the cells in the affected region from communicating with one another. Different skills and functions will be hindered depending on which area of the brain is experiencing disruption, such as memory, communication/language, attention/focus, reasoning/judgement, and visual perception (*Diagnostic and Statistical Manual of Mental Disorders* 294).

There is not a simple test for dementia like there is for strep throat or mono. Diagnosis requires extensive monitoring to detect severe changes in personality, behavior, and ability to function independently. Doctors will often use special standardized tests such as the Mini Mental State Examination to determine which areas of the brain are being affected and measure the progress of the disease. These require patients to perform simple cognitive and physical tasks like recalling today's date,

repeating a short sentence or list of words, and copying a simple line drawing or sketching an analog clock from memory. By adding up the points “earned,” doctors can categorize the severity of the patient’s dementia and make recommendations to their family or caregivers (Kurlowicz and Wallace). Although there are currently no treatments for dementia, many research groups and nonprofits are working to extend patients’ prognoses and improve their quality of life. However, most organizations focus on facilitating daily life through home design, music therapy, and preserving independence rather than the political or long-term social impacts of the disease.

Policymaking regarding the voting status of the mentally impaired is currently left up to individual states. Out of the fifty states, the District of Columbia, and Puerto Rico, only nine have provisions that guarantee the right to vote or do not disenfranchise the mentally incompetent; these states are not limited to specific geographic regions or politically “safe” states for either party (Bazelon Center). Other states have widely varying standards based on court-declared incompetence, guardianship, mental health, and mental/developmental disabilities. A few have incredibly arbitrary standards, such as Vermont’s requirement to be “quiet and peaceable,” or the disenfranchisement of “idiots” in Kentucky and Mississippi (Bazelon Center).

One of the more recent challenges to state voting regulations regarding competence was settled in the 2001 Maine district court case Doe v. Rowe. The prosecutors argued that a new provision in the state constitution that disenfranchised anyone under legal guardianship due to mental illness was unconstitutional and violated the Americans with Disabilities Act (Karlawish et al.). This new guideline was deemed an unconstitutional method of determining voter competency, and the jury concluded

that “a person has the capacity to vote if he or she understands the nature and effect of voting and has the capacity to choose among the candidates and questions on the ballot,” an ability completely separate from being under guardianship (Karlawish et al.) A large group of researchers examined the so-called “Doe standard” from a medical and scientific perspective in 2004, and three went on to create a more comprehensive standard, the “Competency Assessment Test for Voting,” or CAT-V (Appelbaum, Bonnie, Karlawish).

The Doe standard required a voter to demonstrate understanding of the voting process and the ability to choose between candidates by answering a few basic questions: “What will the people of [state] do today to pick the next Governor?” “How will it be decided who the winner is?” and when presented with imaginary candidates and platforms, “Which candidate do you think you are more likely to vote for?” (Appelbaum, Bonnie, Karlawish.). Doctors Appelbaum, Bonnie, and Karlawish added three more categories to create the CAT-V, which additionally asks voters to demonstrate reasoning in their choice of candidate, an understanding of the political consequences of the results, and an understanding of the significance of voting. For each section of the six questions on the CAT-V, the person assessed can receive a score of 0 (inadequate answer), 1 (marginally correct answer), or 2 (adequate answer); the researchers did not indicate a specific score that separated those who were capable or incapable of voting, but clearly those with lower scores indicate lower political competency and higher scores, higher competency (Appelbaum, Bonnie, Karlawish).

The researchers tested the CAT-V along with other related forms of assessment on a representative group of dementia sufferers. On the CAT-V, 45% of subjects

received zero points for understanding the nature of voting, 30% for the effect of voting, only 12% for choice-making, 33% for comparative reasoning, and 58% for consequence generation (Appelbaum, Bonnie, Karlawish). The data was then compiled and compared to the same patients' results on the aforementioned MMSE and Doe evaluations. While there was some correlation between the two scores, not all subjects who scored well on one did well on the others. Over half of those who earned full marks on the Doe Standard test did not pass the additional sections on the CAT-V, yet one patient who scored a meager 11 on their MMSE received full Doe marks (Appelbaum, Bonnie, Karlawish). Most shockingly, the predictable direct correlation between MMSE and Doe scores did not hold true for MMSE and CAT-V scores-- those with satisfactory mental competency did not necessarily exhibit the same degree of voting competency, and vice-versa (Appelbaum, Bonnie, Karlawish). This directly refutes other medical professionals' assertions that doctors can easily gauge a patient's mental capabilities and therefore voting competence through the pre-existing standard dementia testing methods. According to Dr. Imre Loefler, these medically based assessments are adequate enough to be extrapolated for voting competency, yet clearly, this research has shown otherwise (Loefler). To add to the CAT-V's credibility, the study was recreated by a group of Spanish researchers who achieved the same inconsistent correlation and arrived at the same conclusion (Irastorza, Corujo, Bañuelos).

Alongside or instead of a medically-based evaluation, many family members and caregivers simply ask dementia patients if they would like to vote in the upcoming election and follow their wishes. This is approximately the same guideline used by the overall electorate, where those who want to vote do so and those who do not simply

stay away from the polls. The doctors' study also examined this approach to the issue of voters with dementia to test its reliability. Although all subjects who received full marks on their assessment expressed a desire to vote, 63% of those who struggled or "failed" the test still wanted to vote (Appelbaum, Bonnie, Karlawish). Unfortunately, this clear-cut method is not as reliable or trustworthy as it may seem. It also comes with its own set of loopholes-- what about those under 18 who would like to vote, or historically disenfranchised minorities?

Many people might be concerned about the connotations of a voting "test," a term which conjures up images of rigged literacy tests imposed on African-Americans to prevent them from registering to vote. However, the suggested CAT-V test does not allow for results influenced by any factors other than voting competency, which is statistically independent of race, gender, religion, and so on. Whereas literacy tests were purposely made nearly impossible to pass, the CAT-V should be easily managed by anyone with an elementary understanding of the American political system. Although research has not been done on these circumstances, I hypothesize that many children younger than 10 and perhaps even a well-educated kindergartner would be able to score highly on it. Of course, this does not mean that they'll be trudging off the polls with stepstools and crayons. The idea is that dementia patients, and perhaps others suffering from mental incapacities, who cannot demonstrate adequate voting competency by "passing" would not be legally permitted to vote.

Others may argue that disenfranchising select individuals on this basis deprives them of the dignity associated with the right to vote. Stacia Friedman, Philadelphia journalist and daughter of a mother with Alzheimer's, argued in one article that it is

imperative that “we respect, value and rigorously defend every citizen’s right to participate in our elections” (Friedman). Her mom, she claims, may be losing bits of her memory but has not lost her knack for political awareness and activism. Therefore, depriving her of the right to vote would be completely unjust (Friedman). Yes, many Americans do take pride in exercising this right. But I would argue that protecting those who at least understand the basics of this right only adds dignity to the act. Using the prior example, how “dignified” would voting be if a preschooler’s arbitrary scribble in easiest-to-reach oval was of the same value as the vote of a well-informed adult voter? If Friedman’s mom can understand what she is doing by voting and why, there is no issue or reason for her to complain. And if she did not, would she really feel comfortable having her participate in an election-- would she feel undignified because she no longer could perform an action she can hardly remember? One first must understand that there *is* dignity behind the right to vote if they are to feel undignified by being deprived of it.

The researchers behind the CAT-V have a rudimentary plan for implementing this process, but it has not yet been fully fleshed out. The assessment, which took them no longer than five minutes and was easily scored, could be administered by voting officials at nursing homes during absentee ballot events, over a phone call or brief in-person interview with the patient, or even discreetly at the polling place on election day if needed. Some questions are certainly left unanswered-- what threshold will states choose to separate competency from incompetency? Can this process fairly be limited to those with mental or cognitive incapacities or must it apply to all potential voters (to which I reply, hopefully all voters could pass this basic questionnaire anyway!)? These are valid concerns which may make room for doubt in some, but what point would there

be for the researchers to publish every minute detail of a suggestion that has not yet been given a great deal of attention by state governments or voting officials? Karlawish adds to his conclusion that “while uniform policies are needed for voting in long-term care, these policies should be informed by observational and survey studies that identify current problems and suggest where protections for and assistance to residents are most needed” (Karlawish et al.). In other words, more research, testing, and consideration would be needed before their plan could be put into practice.

Fortunately, many other countries around the globe are also beginning to address the issue of voters with dementia. Although each government and culture is unique, this still allows policymakers to review trends and results to learn what might or might not work for their own populations-- for instance, Australians can object to a loved one’s voter enrollment on grounds of “unsound mind” with a doctor’s signature, but the UK’s Electoral Commission has specified that people with dementia may vote regardless of mental capacity (Australian Electoral Commission; “United Kingdom - England 2010”). Within the US itself, there is also likely to be debate over how such procedures should be carried out, if they garnered adequate support. Would there be a Supreme Court ruling, a law passed by Congress, or individual state laws? Perhaps it shall be decided that this is too volatile and sensitive an issue to be handled by the government, and that individuals or organizations are responsible for recommending or carrying out such reviews as they see fit. As with most controversies regarding voting rights, this will likely prove to be a very delicate issue that must be handled with great tact and diplomacy.

Despite details and implementation plans that have not yet fully germinated, the long- and short-term results of the CAT-V's implementation would be quite promising for the future of the American electorate. The issue of voter fraud via dementia patients would be greatly reduced, since those who are cognizant enough to understand the voting process are highly unlikely to let a family member or caretaker override their individual choices on the ballot. Those whose dementia has progressed enough to affect their voting competency would not be weighing in on one of the country's most important political decisions, which they would not even fully understand. This ensures that election results are from consciously deciding and acting voters and prevents an override of the popular and/or electoral vote by a small yet growing portion of the population suffering from dementia. Although individuals may have starkly different opinions about what's best for the future of the country, this measure would make sure that the nation's input is being reported as accurately and fairly as possible.

The issue of voters with dementia may be exigent to our own near future, but Americans further down the line will certainly encounter additional situations and scenarios that do not suit today's protocols. Over the course of our history, the voting process has been modified to remove barriers of land ownership, religious requirements, poll taxes, and disenfranchisement due to race, color, and sex. These changes have earned their places in history books, creating the illusion that the voting regulations in place today are near-perfect and set in stone. However, just as the laws were modified alongside various changes in our nation in the past, they ought to do so in the future. With unprecedented and unpredictable demographic, social, and political

trends beyond the horizon, we must keep an open, flexible, and forward-thinking mind in regard to changes in long-standing ideas and traditions.

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Tasneem Islam

Population Distribution Complex: Questioning the Population Spectrum

Montgomery College

Panel: Sociology

Mentor: Dr. Nathan Zook

A Population Distribution Complex: Questioning the Population Spectrum
By: Tashi Islam
Capstone 2016-217

The alarming idea that the world has a limit to holding and providing life holds a real concern in today's world more than ever. Currently, we have approximately 7.5 billion people in the world with a growing rate of around 1.13% per year. Only 57 years ago, the world population was only around 3 billion, and by 2056 the United Nations projects that we will reach the 10 billion mark. This is both a pressing and evolving issue that requires attention from all citizens of the world because if it has not yet, it will eventually affect quality of life here on, the only place our human civilization has to call home, Earth.

Despite the fact that this is a global issue, this is not a common phenomenon all around the world, for when one looks at different regions around the world it can be noted that some places remain constant in their population or may even be underpopulated, while others are dramatically increasing. The anomaly lies here within the extreme contrast between such regions. Therefore, we must ask: why are some places in the world more overpopulated than others? Being a two-pronged question, this addresses both overpopulated and underpopulated countries of the world allowing one reveal the underlying causes of our global growing rate, and possibly give solutions to what can be done to make quality of life better for everyone. The world itself holds a wide variety of environments and peoples, and the interaction between the two components generates a multitude of factors that could explain the current situation of the world.

A simple Google search will show that the most populated countries in the world are China and India. These countries are so populated that this trait has become a part of how these they are broadcasted to the world. Although these countries are both a part of Asia, they are two separate places each with different living styles and circumstances. Therefore, the question remains, why? The numbers for these regions continue to increase, and they account for a

significant amount of the world share. According to live world statistics given by *Worldometers*, China contributes 18.6% to the world population while India contributes a similar 17.9%. These regions are crucial in understanding what makes a country home to an abundant number of people, and delving into them will provide greater comprehension towards what it is that is causing and promoting such astounding population numbers.

China has heritage that can be traced back longer than most other regions in the world. It has a rich and deep history which must be taken into consideration to truly understand the causative factors that play a role in their growing population. A civilization begins with its location, for the way that people live and thrive are based upon how they have adapted to their surroundings and made the best out of it. In the book *Geography: Realms, Regions, and Concepts* by H.J. de Blij and Peter O. Muller, the authors exclaim that “China’s total area is slightly smaller than that of the United States including Alaska” (468). In comparing the geography of the United States and China, vast regions of China actually have harsher environments compared to the United States, but a key element in China’s geography is its “great life-giving rivers whose wide basins contain enormous expanses of fertile soils” (468). Water is one of the basic necessities for a human to survive, and considering China’s water supply, they were naturally able to accommodate for a greater population. In the book *A Companion to Global Environmental History* the authors, John Robert and Erin Stewart, say “Because all living things need energy to survive and increase in numbers, those that succeeded saw their numbers increase, while others saw their population decline” (58). He explains how by having the right amount of energy, China’s population was able to multiply much faster than an area that lacked in resources.

China's agricultural success within the biological old regime is an integral factor in explaining how China was able to maximize their carrying capacity. Robert and Stewart explain that "Agriculture in China was highly productive...[as] Chinese farmers had learned how to prepare the soil, to irrigate, to fertilize, and to control insect pests in order to maximize the harvest yield" (60). Since China had advanced their agriculture early on, Chinese farmers and laborers could provide more and in abundance over time. The book *China's Peasant Agriculture and Rural Society: Changing Paradigms of Farming* by Jan Douwe van der Ploeg and Jingzhong Ye speaks about the improvements agriculture has made in people's quality of life and its integral role in Chinese society in the buildup of their nation. The authors Ploeg and Ye exclaim that China is "the largest agricultural system in the world: it ranks number one globally in terms of farm output..." (1). This is primarily due to their initial advances in agriculture which allowed for sustainable living both physically and economically by providing jobs. However, this notion of being highly advanced and well supported created disillusionment particularly during the Great Leap Forward from 1958 to 1961. The article "Why did china's population grow so quickly?" by David Howden and Yang Zhou discusses how "Mao openly encouraged a larger population, blinded not only by the overstatements of food production and the unrealistic enthusiasm generated during the Great Leap Forward" (240). Given that the Chinese did in fact advance in technology and healthcare provisions, the conjecture at how well they were doing and how much they could handle was greater than reality.

Culture also plays a big role in how families and in turn populations grow as well. Societal and family values often reflect each other. In the article "Chinese Families," the author, Xuewen Sheng, explains the family dynamic and the role family plays in society. Within traditional Chinese ideals, the family unit is what holds the shape and framework of the

community. A person's support system came from their family. Sheng explains that "the household approach underrepresents the real cultural connotations of Chinese families, given that most Chinese people consider family as something more than a household" (99). When culture highlights family as such an integral part of life, this can provide as a factor towards why population has boomed in this region of the world. Howden and Zhou discuss this through the especially high fertility time during 1949-1957 which occurred mostly due to social and cultural reasons. Under Mao's rule, it was encouraged for the most part to have more kids. The authors quote Mao in his belief that "the more people, the stronger we are" (241). This belief stems from and is reassured by the strong notion of collectivism in Chinese culture.

In comparing both China and India, Muller and Blij exclaim that "China's area is almost three times as large as India's" (404). However, this does not limit India's population from coming near to China's. The physical geography of what was given to India on land as well as below the ground plays significant roles in what happens to their social and environmental atmosphere. Muller and Blij illustrate how the life-giving monsoons allow India to grow rice as their staple crop because the environment is so amply watered (405). By living in an environment that produces such crops in abundance, the people inhabiting the area are given a constant means of sustenance. Robert and Sterwart explain that in the biological old regime "Indian agriculture was so productive that the amount of food produced was significantly larger than Europe, hence its cost was far lower" (60). With the combination of geography, agriculture, and cost effective resources this became a region that could certainly support a greater population of people.

Just as Mao did not think of overpopulation as a real threat, a similar situation happened in India when Nehru came to power in 1947. In response to British rule, the dynamics of Indian

society had been significantly altered which lead to a greater concern over underproduction during the 19th century. The article “Population Bomb? The Debate over Indian Population” by Mytheli Sreenivas addresses British rule in India as the author says “British rule had destroyed Indian manufacturing, but had failed to replace these sources of production with new modes of industry” (1). Therefore, when Nehru came to power in he took initiative on increasing production in the 1950s. Sreenivas explains this as he demonstrates Nehru’s outlook on an increasing population saying “In other words, for Nehru, "No country can be overpopulated, if there is work for everyone" (2). While Nehru did not actively promote fertility rates to go up as Mao did in China, he avoided addressing it altogether because the bigger problem at the time was finding a way to increase agriculture and production.

Considering the cultural factor, in Indian culture, family values are held strong as children are vital in the continuation of the societal cycle built upon the family framework. Indian society highly values elders, and it is expected of children to take care of their parents in old age. In the book *Gender and Development in India: The Indian Scenario* by Anuradha Mathu, the author states “Our society places a higher value on men. Families prefer sons” (17). Males are expected to be the breadwinner by earning livelihood for the family. This gender preference is a pushing factor in promoting couples to continue having children until they have a son. The book *Culture and Customs of India* by Carol E. Henderson goes into depth the degree of importance family plays in the Indian society. Henderson explains “The most important factor framing Indian world view is that of the family...it is the primary social institution within which individuals are born, learn, marry, work, play and enact the main elements of the world view” (50). When a person is raised to value family so much so that it shapes his or her perspective on life, increased fertility rates are incentivized and almost necessary in order to distinguish one’s

identity in such a society. In the book *Problems of Population in India* by R.L. Panigrahi, the author speaks about the lack of culture refinement as a cause to India's high population. Panigrahi says "A person who is more educated, his culture is more refined...[for] education not only enriches culture, but it also controls population" (19). This is not to say that India as a whole is uneducated and therefore their population is high. Rather, this is more directed towards women's literacy in India as Panigrahi says "Women literacy controls women cruelty, poverty, superstition, resulting late marriage of child" (21). In this region of the world, child marriage is a common practice, and this practice is reinforced by tradition that has become the norm. This shows how tradition can truly influence fertility rates.

The structure of a society not only depends on how civilians have adjusted to their environment with regards to geography and culture, but also the role that the government plays in solidifying the structure within a society. The policies that a government enforces influences or can attempt to influence the way that a society will work. In the article "Seeking Zero Population Growth: Population Policy in China and India" by Phyllis Stolc, the author speaks about the "now well-known one-child policy...[which] required state action rather than awaiting cultural shift towards one child families" (12). This policy rewarded people by giving out incentives to limit having children. As China began to see that things are indeed becoming too crowded, policy had to be enforced so that there would be immediate action taken rather than let things play out. However, this did have repercussions as Muller and Blij explain "it led to an excess of men over women in the population pyramid" (478). Since families preferred males over females, it led to an imbalance in the newer population. This shows how problematic things can become if the government does decide to intervene in something like fertility which has its own natural cycle. This not to say that the government should not act at all because the

population levels clearly did become an issue big enough for Chinese officials to realize. If there is an impending problem in a society, it is the job of the government to help to address it, and by addressing it the fertility rates did in fact go down.

India's government also saw the need to act in addressing population control. Although India did not implement a concrete policy as China did, Indian administration addressed the issue through government incentive programs. They focused on family planning and reproductive programs that primarily focused on IUDs and sterilization. However, Stolc states that "India's population control efforts have enjoyed limited success, but some states and districts have demonstrated very important innovations" (19). The lack of an authoritarian government, like China's, made India take a different direction in attacking population control. India's programs were scattered as voluntary programs across communities in India because, as Stolc explains, they had "to comply with democratic principles and generally preserve the voluntary nature of their population control policies" (19). This made the programs dependent upon if a person wanted to participate or not. This freedom to make a choice can make someone skeptical or simply say no to the whole thing for many reasons whether it be cultural, religious, etc. However, it should be noted that the programs initiated by the Indian government did begin to gain acceptance over time because of the incentives that were attached to them such as free sterilization and compensations. In either case, the distinction between the types of government truly influenced the way a country would approach the issue of overpopulation.

However, in exploring the dilemma of uneven population distribution across the globe, the other end of the spectrum must also be acknowledged. Not only are there areas of the world that are grossly overpopulated, but there are also parts of the world that are severely underpopulated as well. According to *Worldometers* Mongolia's population is approximately

3,051,900 which is so small it virtually accounts for 0% of the world share population. In comparison, Australia's population is 24,641,662 which may seem like a significant difference from Mongolia but upon looking at it from the greater scale, it only accounts for 0.3% of the world share population. These regions are of particular interest because Mongolia is not far from two of the most populated countries, China and India, which were discussed earlier, and Australia has extensive land mass which should theoretically secure many more homes to many more people.

In order to begin to understand Mongolia's population one must look at its overall front – the geography and topography. It is interesting because Mongolia is actually located near one of the most overpopulated countries – China, and used to be associated with China for some time as well. Muller states “From the late 1600s until the revolutionary days of 1911, Mongolia was indeed part of the Chinese Empire” (502). However, the geography of Mongolia is certainly not as favorable as China. In the article “Mongolia,” the author, Michael Aliprandini, explains the topography as predominantly steppe, mountainous, and majority of Southern Mongolia consists of the Gobi Desert (1). The climate plays a huge role in this as well. Aliprandini says “Winters are long, cold, and dry...and summers are short, warm, and unpredictable” (1). Combining these factors there is not much to support an agricultural foundation which is integral for population growth. Aliprandini says “Crop growing is not a central economic activity, given that less than 1 percent of the land is arable.” Living with land that does not necessarily provide much makes settling down and living here all the more difficult.

As aspects of China's and India's culture were observed, it is equally important to research this fundamental aspect of society to understand why Mongolia is so underpopulated. The environment plays a significant role in shaping the way different cultures are formed. Since

the landscape of Mongolia does not support a stable agricultural system, many compensate by living nomadic lifestyles. In the article “Mongolian nomadic culture and ecological culture: On the ecological reconstruction in the agro-pastoral mosaic zone in Northern China,” the authors MunkhDalai A. Zhang, Elles Borjiginc, and Huiping Zhang state “The environment and their way of life made Mongolian nomadic culture closer to nature, and to interact more directly and harmoniously with nature” (22). Naturally, this sustainable culture emphasizes on making do with what they have and does not need many people to drive the community as would a traditional farm-based community. With nomadic culture, families do not need as many kids as families living in agrarian cultures need to support keeping their farms going. Rather, as long as everyone does their part and respects their role, the basis of the foundation is stable. Also, the religion, Lamaism, also plays a cultural/social role in why the population is low in Mongolia. A reference article, “Mongolia,” states “The traditional faith in Mongolia was Lamaism, which was suppressed beginning in 1929.” With this, men that became lamas did not marry which put them out of the position to grow the population up until quite recently.

In the article “A way of life in crisis: on the sparsely inhabited steppes of Mongolia...” the author, Kit Gillet, discusses how because the climate of the area is so harsh, holding on to traditional nomadic lifestyle is difficult as their limited resources are leaving them. Gillet says “Government measures have so far done little to aid the plight of Mongolia's herders” (2). It is evident that some citizens feel unsupported by their government. Also Gillet refers to the transition from communism to capitalism that happened in the early 1990s in which “new herders arrived, and existing herders began increasing the size of their herds exponentially, available resources were strained, and the delicate natural balance was further damaged” (3). However, even though the government is lacking in stabilizing the society through their

economy, the Mongolian government is making an effort to address their population problem through the Ministry of Population and Labor which strongly pushes for pronatalist policies. However, despite their efforts fertility rates have been declining since the mid 1970s. In a review of the book *Population Policies, Socio-economic Development and Population Dynamics in Mongolia*, Robert Neupert discusses the unique anomalies Mongolia faces as fertility rates decline whilst the government promotes higher birth rates. Neupert says “the author rightly questions the wisdom of the government’s desire for high population growth in the face of the country’s fragile ecosystem which cannot sustain unlimited livestock and the ability of the contemporary economic situation to cope with the increasing demands of a rapidly growing population” (243). As the economy is increasingly becoming agrarian, the carrying capacity of livestock must be acknowledged because that directly affects how many people there can be. Also, the government needs to address health issues such as making contraception available because, ironically, this is what contributes to the sharp decline in fertility rates since. Neupert says “the most important proximate determinant of this fertility decline is abortion used as a primary means of birth control due to the unavailability of contraception” (243). In pushing for a growth in population, the government needs to be able to build stability into the society before it can support more people and have their pronatalist policies demonstrate an actual effect.

Another interesting example of under population can be explored through Australia. It is the sixth largest country in the world, yet sparsely populated. In *Australia: A Very Short Introduction*, Kenneth Morgan says “Australia's population and economy reflects these geographical and climatic facts as well as the process of Aboriginal and settler use of the land” (4). This relates back to the three other countries explored earlier, as we have seen that the foundation of a people’s survival is initially based upon geography and climate. *Our World* by

John Pearson gives a brief overview on the geography and population. Pearson states “About 89 percent of Australia's population lives in urban centers, predominantly along the coast” (1). As majority people live along the coast, much of the land remains. This can be explained by the fact that “about 40 percent of Australia is desert” (Pearson 4). Combining hot deserts and the fact the most of Australia does not receive much water, it makes living there tough. Pearson states “Australia's east and west coastal areas receive about 100 centimeters (40 inches) of rainfall per year. The vast remainder of the country is very dry, with averages of less than 50 centimeters (20 inches) per year” (4). China and India demonstrated how vital an abundant source of water is to house a large population. Therefore, this deficiency is a key factor contributing to why population numbers today are so low.

It is interesting however, the history of the Aborigines of Australia for they can be traced back possibly over 100,000 years which is similar to China. The fact that the Chinese can be traced back so far back was one reason behind their dense population today, so why is that not the case with Australia? As climate and geography play major roles, they also contribute to the culture and way of life which also dictate the way a population thrives or dwindle. The Aborigines were also nomadic most likely because rainfall is so uncertain which makes settling and living an agrarian life difficult. Morgan also states “Aborigines controlled their population in relation to sustainable resources by infanticide when mothers already had one suckling baby” (5). Living in uncertain terrain promoted population controls because they had to ensure there would be enough resources. However, today the population of Australia not only consists of Aborigines but a significant number of people stem from British ancestry from when white settlers migrated to colonies subsidized by the British government in the nineteenth century. This pushed away the idea of nomadic culture as people began to settle as well as contributed to new culture.

Australian society today does not emphasize the idea of marriage or large families. In the article “Cover Story: The truth about Australia's birth rate” Catherine Sheehan reports “Overall fertility rates in Australia are continuing to decline, and current cultural trends are likely to keep the fertility rate down well into the future.” Sheehan speaks about census data demonstrating that men are having trouble finding stable jobs which prevent them from settling down through marriage and building a family. The trend of cohabiting has taken over the idea of marriage which reinforces being independent rather than family values. Sheehan compared fertility rates to the US saying “The reason for the high birth rate in the US is both cultural and ethnic: strong Christian values lead to large families, especially among the Latino community, where the birth rate is more than double the white birth rate.” This demonstrates that Australia not only needs to push efforts towards providing job security towards males but also push for cultural tolerance of traditional values to be able to grow a more stable Australia through fertility.

In addition to geography and culture, immigration has also affected population. Initially the first wave of immigrated was pushed in the nineteenth century through white settlers. This influx of people brought a new competition for resources between the settlers and the natives. Along with competition, Morgan says “Aboriginal numbers suffered dramatically through violence and the spread of disease from contact with Europeans” (20). Subsequently, the native population was threatened immensely and population numbers plummeted. However, after the influx of white settlers, immigration for others became tough. In the twentieth century Morgan explains “The premiers advocated a White Australia that restricted immigration from Asian countries” (65). With selective immigration, the government cut down on who could enter and how many people could enter. This policy was enforced up until the 1970s. However, over time there has been a demand to increase the population. In the article “Is Australia Overpopulated?”

the author, Jason Doyle, states “successive generations of Australians have advocated a rapid increase in their numbers, seeking to develop the country economically and to protect it from foreign aggression...[and with this,] immigration, rather than natural fertility, has been the primary engine behind Australia's rapid population growth, particularly in the 1980s, when annual influx climbed above 100,000” (1). According to The Parliament of Australia’s website, “Australia has run a managed Migration Program, under which places are allocated each year for people wanting to migrate permanently to Australia.” This program has been implemented since 1945. Although Australia does want to increase the number of people they have, they also do not want a random surge of population numbers with an unforeseen future. These laws target individuals who can contribute to the country by bringing their skills and expertise that are needed in Australia.

In exploring the two countries, Mongolia and Australia, together there are clear similarities that provide and explanation for why these areas of the world are so underpopulated. The most important factor relating the two is clearly their environments. Geography plays a crucial role in man’s existence. Both Mongolia and Australia consist of land and climate that is difficult for many to live in. With this people had to adapt to the areas they were living in and this resulted primarily in nomadic cultures. However, with time Mongolia seemed to maintain more traditional culture, while Australia was exposed to new culture through the British. It is interesting how even though the cultures shifted to become so different from one another, both countries were able to maintain a low population in their own ways. The governments play a vital role in addressing this issue. As the Chinese and Indian governments address overpopulation through different policies to direct lower fertility rates, the Mongolian government addresses under population by favoring higher fertility rates. Australia, however,

chose to address the situation differently by which much of their population influx comes through immigration. Their mode of raising population directly impacts the society as migrants are expected to be ready to work and contribute to the economy and society.

In comparing the two approaches of Mongolia and Australia it is interesting to see how each of them are working out in today's world. The Mongolian government's efforts of raising fertility rates are overshadowed by socio-economic and demographic characteristics which must be addressed in order to see a growth in population. However, Australia has seen a surge in population numbers due to immigration, and unlike the idea of raising fertility rates and waiting for the next generation to provide, Australia is bringing in new talent from other countries to contribute to their society immediately. Despite having two different models of raising the population in these countries, the idea of going past a certain capacity in both countries is a concern to be aware of. There is a fine line between stable growth and precarious overgrowth. As seen with China's and India's efforts to boost population, they are now put in a tricky situation to maneuver out of.

In exploring the factors that promote overpopulation in China and India and factors that promote under population in Mongolia and Australia, we can only catch a glimpse of the state of the world's population distribution today. It is clear that each of these countries are making efforts to address their own population issues, and it is hard to tell what the state of these countries will be in the next several years. In the case of China, India, and Mongolia the change is not as constant nor immediate. It is interesting because these three countries are directly trying to influence fertility rates. Telling people how to structure their families is complicated and can feel intrusive coming from the government. This could be playing a significant role in why change is not happening as rapidly as each of these respective governments hoped it would.

There needs to be a feeling of individual responsibility from the citizens for policy to actually work. Making decisions about one's family is something that one should feel they oversee as opposed to feeling like the government has taken over having option of choice. Furthermore, if the government wants to speak about fertility rates, they need to establish a good relationship with their citizens through providing education, family services, and societal support. In contrast, Australia decided to build upon the needs of the society rather than pushing for increased fertility rates. By raising their population through immigration as opposed to fertility rates, the government opened up opportunity for people across the globe to contribute in growing and stabilizing Australia's economy and society.

As important as it is to address overpopulation, it is important to address under population because each side of the spectrum comes with its own problems and concerns that the government has to find a way to effectively address. The role of a government plays is a significant one because it can be a true catalyst for change, or be disconnected from its citizens resulting in losing its potential directive. Addressing the notion of population is truly a complicated task because it can feel like an attack on one's personal life. It is hard to say if there is any true solution that will balance out population. However, the effort must remain. This has to become a conversation that people can have openly with each other and with their respective governments. Without conversation, people will feel disconnected from their governments and policy cannot be as effective as it should be; without education, people will not be the most informed they can be to make smart decisions; without addressing what it means to be a citizen of a nation and the responsibilities that come with it, people will lose accountability; and without voicing the needs one possesses as a citizen and rightfully deserves, the government will lose

accountability. The conversation of population belongs to everyone, and the only way for it to be effective is if the conversation is open, fluid, and collaborative.

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The Changing Demographic and Treatment of Heroin Addiction

Pennsylvania Highlands Community College

Panel: Sociology

Mentor: Dr. Russell Newman

Abstract

This paper explored the sharp increase in heroin abuse across a variety of demographics. Additionally, the link between the shift in demographics of the typical addict and the shift in public policy was examined. The economic benefits of treatment-oriented public policy were also discussed. Multiple communities are adopting new and progressive methods for coping with the economic and social burden of heroin addiction, overdoses, and the spread of infectious diseases. Safe injection sites have had the most positive results in terms of preventing overdoses and reducing blood-borne diseases common among addicts. Clean needle exchanges have reduced the spread of disease and have made a positive impact in certain communities with their administration of overdose-reversing drugs; ordinary citizens and law enforcement are now able to purchase, possess, and administer these drugs without a prescription in at least one major American city. Research supports the idea that incarceration is less effective than an interventionist approach in terms of recidivism and further enforces the notion that treatment-based programs and community activism are a more realistic, productive way of coping with the social and economic stress that heroin addiction brings.

The Changing Demographic and Treatment of Heroin Addiction

The National Institute on Drug Abuse (NIDA) defines heroin as “an opioid made from morphine, a natural substance taken from the seed pod of the Asian opium poppy plant” (NIDA, 2017, “What is heroin,” para. 1). Since its inception in the late 19th century, heroin has been a plague on American society. The demographic of the typical heroin addict has changed in the 140 years since the drug was first synthesized, as have opinions of the addict and methods for treating addiction (History, 2016). By studying the trends of heroin addiction through the scope of social conflict theory, it is possible to gain a better understanding of which people are largely at risk, how to prevent or deter addiction, and how to treat addiction in a way that ensures both the best chance of success for the addict and the least amount of strain on society.

Countries around the world are beginning to address the heroin epidemic by adopting an approach that calls for harm-reduction, rather than criminalization and incarceration; furthermore, some communities in the United States have started to address heroin addiction in the same manner, and many of these communities have seen success. The scourge of heroin addiction is becoming less easily defined by racial, economic, and social factors. Just as the demographic of the typical addict is changing, the methods of treatment and prevention must evolve with it.

Definition of Heroin Addiction

Addiction to heroin (or any opium derivative) typically involves a physical dependence and, subsequently, withdrawal symptoms upon deprivation of the drug; mental and psychological dependence also play a key role. This combination of psychological and physical dependence causes the addict to go to great lengths to

obtain both the drug itself and the money required to purchase it. When the drug was first introduced to American society, addiction was largely confined to Civil War veterans, as heroin was touted as a non-addictive cure for morphine addiction and alcoholism—two epidemics that arose from the widespread use of morphine as an anesthetic for battlefield surgeons (Narconon, 2016). By the 1960s, the drug had become known as the scourge of the African-American community, particularly among those with lower social standing, lower income, and less education (Gardiner, 2009). According to the Centers for Disease Control and Prevention (CDC), rates of addiction steadily increased from 2002-2013; these increases were almost universal, defying boundaries of age, race, income, or social status. Certain categories of people, however, experienced a more drastic rise in heroin dependence. Non-Hispanic whites, people ages 18-25, those who had recreationally used an opioid painkiller in the past year, and those who live in urban areas saw some of the most pronounced increases in abuse and dependence. More alarming was the increase in the rate of fatal overdose during the same period; the United States saw the mortality rate from heroin overdoses rise from 0.7 per 1,000 people in 2002 to 2.7 per 1,000 people in 2013, representing a 286% increase (Jones, Logan, Gladden, & Bohm, 2015, “Results,” para. 6).

Incidence

In February 2014, the United States Office of National Drug Control Policy (ONDCP) released a study where it estimated how many chronic heroin users there were in America during the year 2010, relying on statistics gathered from drug-related arrests and corresponding drug tests that showed a positive result for opiates. The ONDCP estimates that roughly 1.5 million Americans were chronic heroin users in

2010—that is to say, they used heroin 21 or more days per month during the entirety of their dependence on the drug (Kilmer et al., 2014).

Heroin addiction has long been believed to be an inner-city problem: poor, uneducated African-Americans who lived in the most economically depressed neighborhoods of cities were the typical heroin addict in the late 20th and early 21st centuries. Studies from the CDC, however, show that of any race, non-Hispanic whites have seen the highest increase in rate of heroin dependence from 2002-2013; contrarily, other races collectively saw a 15% decline in the frequency of heroin addiction during the same period (Jones et al., 2015, “Results,” para. 3). Heroin abuse and dependency is most prevalent, and has been increasing at the fastest rate, among young adults, particularly those between the ages of 18 and 25. Within this age range, nearly 7.5 out of every 1,000 people is dependent on heroin; this is five times the addicts in the age group 12-17 and over three times more than people over the age of 26 (Jones et al., 2015, “Conclusion,” Table 1).

Theoretical framework: Social Conflict Theory

Karl Marx (1818-1883) is considered the father of social conflict theory. He viewed society as a setting that fosters inequality between classes. His theory was that members of a society who possessed money, power, better education, and a higher social standing had a better chance of keeping their wealth and privilege, leaving little room for people in the lower classes to achieve a higher social status. The social conflict approach demands a focus on how factors including race, gender, ethnicity, age, social status, and income are linked to inequality within a society. Those with power or money, for example, are more likely to be in positions of greater influence

within a society. The executive officers of thriving, billion-dollar corporations are considered upper class, but in addition to defining their place within the class system, the money and power they possess may be (and often is) used to influence public policy. Lobbyists from these companies use different tactics, such as campaign contributions, to attempt to sway the opinions of legislators as it suits them. Lower class workers, those without money or power, have little say in any of these matters. If those in power can legislate and shape society in a way that ensures their own profitability, they are able to maintain their wealth, power, and social standing; furthermore, it creates more inequality between classes.

Social conflict theory can also be applied when looking at heroin addiction in the United States. For much of the 20th century, heroin addiction was largely confined to poor, inner-city, African-American neighborhoods where education was poor and there was a high instance of single-parent homes. One of the largest, most costly consequences of addiction is crime (Center, 2016). Neighborhoods where heroin is prevalent and available see a much higher rate of robbery, burglary, car theft, prostitution, and gun violence. Legislation passed in the 1970s, dubbed the “War on Drugs” by the Nixon Administration, sought tougher criminal penalties for those found to be in possession of illegal drugs. As a result, the citizens of lower class, uneducated neighborhoods, who already had a greater chance of becoming addicts, now faced longer, tougher prison sentences than ever before. High rates of incarceration lead to more single-parent homes, children being placed into foster care, and more strain on the public welfare system (Clarke-Stewart & Parke, 2001). Minors were forced to become the provider for their family in some instances, and with a lack of opportunity,

many young adults and children turned to drug dealing, perpetuating a cycle of hopelessness, addiction, violence, and imprisonment for an entire segment of the population for multiple generations.

Social conflict theory, however, does not only describe conflict; it also views social inequality as a vehicle for change. The early- to mid-2000s saw the beginning of a shift in who was affected by heroin addiction (Jones et al., 2015). As an increasing number of affluent, White, suburban neighborhoods saw an influx of heroin into their schools and communities, it caught the attention of community leaders. Newspapers, television, and other media began reporting on the growing heroin problem more frequently and in greater detail. This social issue had long been of great importance to poor, marginalized, inner-city families, but these people, having little power or social standing, were largely ineffective in enacting any positive change. With rates of heroin addiction and overdoses in the white, upper class growing at unprecedented rates throughout much of the last decade, the United States government is beginning to reduce its focus on incarceration and treat addiction as a public health crisis, preferring treatment and prevention (Cohen, 2015). Thus, it is apparent that social inequality not only plays a role in defining conflicts but also influences what changes are made and how—if any are made at all.

Justification

Heroin addiction is becoming an increasingly cumbersome burden on American society. Families suffer due to overdose and incarceration (Clarke-Stewart & Parke, 2001). Emergency services are severely strained due to the increasing necessity to prevent or counteract overdoses resulting from the spread of increasingly present

“tainted heroin”—heroin that has been mixed with rat poison or fentanyl to increase its potency. Prisons are crowded with non-violent drug offenders (Carson, 2015).

Preventable diseases, most notably Human Immunodeficiency Virus (HIV) and Hepatitis C, proliferate throughout society due in part to strict laws prohibiting clean-needle exchange sites. Ultimately, regardless of class, income, or social status, American taxpayers feel these consequences, whether in a monetary sense or in the decline of their quality of life.

Recently, there has been a growing sentiment in the United States that the War on Drugs has failed. According to the United States Department of Justice, half of all federally incarcerated inmates were serving sentences for drug-related crimes in 2014 (Federal, 2016). The Justice Policy Institute, a non-profit organization that advocates prisoner reintegration and treatment with the goal of reducing prison populations, released a study in 2010 showing that the national recidivism rate is well over 60% for those serving sentences under 5 years (Justice, 2010, p. 2). Despite decades of rhetoric surrounding the War on Drugs and being “tough on crime,” mass incarceration of non-violent drug offenders is largely ineffective.

The first step in successfully addressing the heroin epidemic is to gain a better understanding of who is at the highest risk. The CDC’s report from 2015 states that those at highest risk were “males, persons aged 18–25 years, persons with annual household incomes <\$20,000, persons living in urban areas, and persons with no health insurance or with Medicaid,” while significant increases were seen in almost all study groups, particularly women, whose rates of dependency doubled, and non-Hispanic whites, whose rates of dependency more than doubled (Jones et al., 2015,

“Conclusion,” para. 1). It stands to reason that the biggest outreach, at least initially, should be to these high-risk groups; moreover, other countries, and even certain cities in the United States, have found that public outreach to addicts who are actively using heroin has been widely successful in key areas.

In the 1990s, Switzerland was dealing with the unprecedented spread of HIV, due in large part to a chaotic, open-air drug culture in some of its cities. The Swiss government, seeing this as a public health crisis, decided to experiment with a new strategy: free methadone, free syringes, clean syringe exchange programs, and safe injection sets equipped with beds, showers, and medical personnel. In a 2010 report by Reuters, Swiss authorities reported that since the beginning of the program, HIV rates had fallen by 50%; the same decrease was seen in overdose mortality among intravenous drug users (Nebehay, 2010, para. 9).

The Downtown Eastside of Vancouver, British Columbia is a neighborhood in which heroin ran rampant in the early 2000s. Used syringes littered the sidewalks, prostitutes loitered on the corners, and addicts injected heroin and cocaine freely and openly. In 2003, the Canadian government granted legal exemptions to a company called Insite, allowing them to open the first supervised injection site in Canada. The aim of the program was to reduce fatal overdoses and stop the spread of preventable diseases, focusing primarily on the immediate neighborhood around the injection site. Brandon Marshall of *The Lancet*, a British medicine journal, reported in a 2011 study that since the opening of the site, overdose deaths in the Downtown Eastside have been reduced 35%; during the same period of study, overdose deaths in the rest of the city of Vancouver decreased 9.3% (Marshall, Milloy, Wood, Montaner, & Kerr, 2011,

“Findings,” para. 1). The Vancouver Coastal Health Authority (VCH), the parent company of Insite, states that as of 2016, there have been 4,922 overdose incidents and no deaths; trained medical personnel intervened, and these incidents were non-fatal (Vancouver, 2017). In the same year, the site had an average of 722 visits per day, only 440 of which were for supervised injections (Vancouver, 2017). This suggests that roughly 40% of the people who visit the Insite program are using one of the other services it provides: referrals to social services, detox, rehabilitation centers, or the in-house detox program, Onsite.

This harm-reduction strategy has been met with resistance from both the public and policymakers at different times. In 2008, the Canadian government threatened to discontinue extensions to the trafficking and possession provisions of the Controlled Drug and Substances Act. The Canadian Supreme Court, however, found this to violate the principles of fundamental justice in what was a landmark victory for the program (Dooling & Rachlis, 2010).

One of the areas hardest hit by heroin in the United States is the Appalachian region, as evidenced by the spike in hepatitis C transmissions and increasing admissions of heroin addicts into substance abuse treatment in Kentucky, Tennessee, Virginia, and West Virginia (Zibbell et al., 2015). Pittsburgh, Pennsylvania has seen multiple outbreaks of lethal Fentanyl-laced heroin and, along with Cambria County, a large upswing in overdoses, despite dedicating an increasing number of city police officers to patrol high-risk neighborhoods, forming task forces specially designed to combat heroin trafficking and distribution, and receiving Drug Enforcement Administration officers on loan from the federal government (Lord, 2015). In 1995,

Prevention Point Pittsburgh (PPP) was founded when two volunteers, James Crow and Caroline Acker, began distributing clean syringes in some of the most drug-ridden neighborhoods in the city to help combat the alarming spread of HIV. In 2002, PPP was authorized to set up an anonymous syringe exchange program at the Allegheny County Health Department (ACHD) Main Office located in the Oakland neighborhood of the city. Since its inception, PPP has begun to offer many other services—free HIV and Hepatitis C testing, crisis intervention, case management and one-on-one counseling, referrals to detox and rehabilitation centers, and assistance in finding housing, food, and employment. Aside from their parent operation at the ACHD Main Office, they dispatch a team of volunteers to spend two hours in two heroin-infested neighborhoods (Perry Hilltop and the Hill District) twice a week, offering clean needles and assistance in finding substance abuse treatment (Services, 2016).

Perhaps the most progressive achievement of Prevention Point Pittsburgh, however, is their Overdose Prevention Project. For no charge and with no health insurance required, anyone who visits the Health Department during PPP's operating hours can attend overdose response and prevention education. After a twenty-minute class, attendees (whether they be addicts or concerned relatives) will be issued a prescription of Naloxone (Narcan), a drug designed to be injected into muscle tissue or administered as a nasal spray that immediately reverses the effects of an overdose. Since 2005, over 1,800 overdoses have been prevented with Naloxone prescribed from their facilities (Overdose, 2017).

The success seen by Prevention Point Pittsburgh has resonated throughout the community. In May 2015, the Allegheny County Health Department Director issued a

standing order, authorizing the distribution and administration of Naloxone, without a prescription, to those at risk or to those who may know someone at risk of a heroin overdose (Health, 2015). City of Pittsburgh emergency responders are now being equipped with Naloxone and trained how to administer it properly. Many pharmacies in the city allow a person to purchase a clean, packaged syringe for one dollar; they will also sell a small amount of Naloxone without a prescription and allow the addict to pay outright or will bill their insurance company.

Undoubtedly, as the United States is a capitalist society, lawmakers and citizens alike will be interested in the cost-effectiveness of pursuing a route of treatment for addicts, rather than prison time. A report published by the New York Academy of Medicine details the negative economic consequences that drug abuse has on American society. The study claims, based on findings from the ONDCP, that the estimated cost of drug abuse in 2002 was \$181 billion with an annual increase of 5.3%: over \$350 billion in 2016 (Office, 2004, p. IV-1). The cost includes health costs, disability, and withdrawal from the workforce, while the annual increase is representative of increased law enforcement, inflation, and incarceration costs. If the recent trend of increasing drug abuse, overdose, incarceration, and inflation continues, it seems inevitable that the burden carried by American taxpayers will increase alongside it. While the change in approach to the drug problem may seem radical to some, other countries' successes—and successes found within American communities—must be given serious consideration.

Conclusion

Research shows that the War on Drugs has resulted in the overcrowding of prisons, particularly with those inmates deemed to be non-violent offenders; furthermore, the minimum sentencing laws brought on by the War on Drugs seem to exacerbate this problem, while failing to complete its main objective—to slow the trafficking and consumption of illegal narcotics, especially heroin. The impact is felt not only by addicts and prisoners: business owners, police, emergency responders, lawmakers, schools, families, healthcare providers, and average American taxpayers are all among those who suffer the negative consequences of addiction run rampant.

As the demographic of the typical heroin addict becomes less absolute and as heroin addiction becomes an increasingly pervasive, destructive force that permeates all aspects of our society, the methods of prevention, diagnosis, and treatment of addiction must evolve quickly to meet societal needs. Different countries and communities have seen great success by adopting a cultural shift toward viewing and treating heroin addiction as a public health crisis, rather than a legal or moral dilemma. Critics may claim that heroin addiction never became a “public health problem” until it began affecting more affluent members of society, namely white and middle- and upper-class people. Whatever the reasons for this change in consciousness, the evidence proves that treatment, prevention, education, awareness, and social and community outreach programs are far more effective at stemming the tide of mass incarceration and perpetual addiction. Those affected by heroin addiction are mothers, fathers, sons, daughters, sisters, brothers, friends, and co-workers; they are religious, atheist, black, white, Hispanic, heterosexual, homosexual, young, old, rich, poor, or somewhere in

between. Heroin addiction in the United States has a reach that touches every member of society, and only by working together will law enforcement, citizens, and families begin to reach solutions.

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The Hidden History of the Atlantic Slave Trade: Subjectivity and Slave Culture

Orange County Community College

Panel: History

Mentors: Professor Elaine Torda and Professor Michael McCoy

The Hidden History of the Atlantic Slave Trade: Subjectivity and Slave Culture

Introduction

In the colonial and early national periods of what was to become the United States, slavery went largely unquestioned. In the colonial era, slavery was found in all colonies, but the majority of slaves were located on the plantations of the southern colonies. In an English Atlantic economy heavily geared toward agriculture, the South played a vital role. To the plantation owner, slavery was acceptable. The planter elite believed that slaves were indebted to their owners. Such paternalism persisted through the colonial and antebellum eras. According to Donald R. Wright, "Whites expected loyalty from their slaves and grew to develop a false sense that the men and women they owned and worked were grateful to them and happy with their lot."¹ Slavery became normalized. At one level, such normalization began in the 17th century within years surrounding Bacon's Rebellion. At another level, slavery's normalization was ideological-rooted in various biblical and scientific explanations.² Ultimately, the roots of institutionalized slavery in the New World are found in The Atlantic Slave Trade—the history of which has been subject to wide interpretation.

History is abstract and malleable concept: although it provides much insight into the past, allowing people to learn about various societies throughout the ages, history is in the hands of the historian. It is the job of the historian to write critically and analytically about the past, but the version of the past produced depends on the historian writing it.

¹David Wright, *African Americans in the Colonial Era: From African Origins through the American Revolution*. (Illinois: Harlan Division Inc, 3rd Ed, 2010), 159.

²Edmund Morgan, *American Slavery, American Freedom*; Peter Linebaugh and Marcus Rediker, *Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic*. 135-39.

An idealistic version of history would be unbiased, historical accounts of the past; but this is unrealistic. Since history is subjective, some aspects of history will be deemed more important than others. Whatever part of history that may not be seen as important is often “glossed over,” or briefly mentioned.³ The birth of culture among the African natives during Atlantic Slave Trade has, for too long, fallen into this “ignored” category of history. It is not that it was purposely ignored; rather, historians of the past have not taken time to truly focus on it. Due to the subjective nature of history, certain aspects of the Atlantic Slave Trade have not been fully explored. From the time the African natives came, a new culture came as well. As the “slave-culture” progressed into African-American culture, the role of group progressed as well.

Due to the subjective nature of history and other external factors, the Atlantic Slave Trade was deemed as the death of culture and people, forever “lost” in history. However, further analysis of history and slave culture in the United States reveal that the Atlantic Slave Trade was the birth and creation of a new culture in the United States: first starting in the colonial era, eventually developing into the deep, rich culture of African-Americans today. This essay seeks to explore the ways in which the subjective nature of history has too long hidden critical aspects of the past, especially the lives of regular, every-day people in history. Using the birth of African culture in the Atlantic Slave Trade, this essay will delve into the historiography of African natives in the New World, and will reveal not only the crucial role that African slaves had in establishing a new culture in North America, but also will explore the possible racial, class, and

³ R.G. Collingwood, *The Idea of History*. New York: Oxford University Press. 1946.

historiographical reasons as to why this profound history of the African slaves have only come to be learned about in the recent decades. In essence, the misconception about slave culture throughout American history has blinded us from realizing the truth: The Atlantic Slave Trade created a new culture among slaves which would be the cornerstone of American society ultimately having lasting effects until today.

Subjectivity

History, academically defined, is “the study of past events, particularly in human affairs⁴.” It is not only the simple re-telling of the past, but it is the understanding of such past events; former cultures; traditions; mindsets; civilizations, and it is wrapped up into one word: “history.” Although some argue that history is objective, further analysis reveals how it is not. Collingwood argued that history is the product of particular choices and contexts of the historian; Carl Becker argued that history is “a useful myth,” always unstable and always ready to be “redesigned and newly colored to suit the convenience of those who make use of it.”⁵ More fully, Becker argues that “History . . . is rather an imaginative creation, a personal possession which one of us, Mr. Everyman fashions out of his individual experience, adapts to his practical or emotional needs. . . thus creating his own history.”⁶ Though there is nothing innately wrong with such subjectivity, the consequences of historical choices are clear. . . Historians play a definitive role in the way people perceive the past: if historians focus on negative aspects during a certain era, generally, the public will remember that era as such.

⁴ Oxford Dictionary.

⁵ Collingwood, *The Idea of History*; Carl Becker, “Everyman His Own Historian,” (*American Historical Review* 37. 2. (1931): 221-36.

⁶ Carl Becker, “Everyman His Own Historian.”

History influences education; in this case it influences how the Atlantic Slave Trade, taught to students. Realistically, most students have general knowledge of the Atlantic Slave Trade and its effects. Most understand that this was a forced migration of more than 12 million African natives. Relatively few can explain in detail the effects the slave trade concerning the creation of a culture that still exists today. In short, students are prepared to recognize the negative consequences of the trade—that it was cruel and unjust—but are less capable of recognizing African contributions. According to Peter J. Parish, “Our students are sometimes better equipped to reel off the leading authorities in a particular field than to develop a genuine understanding of what happened in the past. There are times when it is hard to avoid the feeling that historians may unintentionally obstruct the view of history.”⁷ In essence, students learning the values of the historian rather than the value of history itself. Here, Parish expresses the direct relationship between the historian and the school system: if the historian writes subjectively, then the student, unknowingly, will also be learning subjectively.

Historiography

In large part, the historiography of the Atlantic Slave has emphasized the negative and neglected the creativity of the people caught up in the system. Traditionally, when people are asked to think about the Atlantic Slave Trade, tend to think about the abusive and terrible treatment of slaves during the Middle Passage and their newly-founded lives in the New World. Although the Slave Trade was horrific, a new culture was birthed from it. Without controversy, slaves of the Atlantic Slave Trade were

⁷ Peter J. Parish, *Slavery: History and Historians* (New York: Harper and Row, 1989), XI.

subjugated and branded as property: a slave's existence revolved around their master; and for a long time, so too did our history. More recently, however, "fresh insights and perspectives, new evidence, and new techniques for exploiting this evidence," have opened the door to different interpretations of the slave trade.⁸ We should briefly consider these historiographical trends.

For historians of the late nineteenth and early twentieth centuries, the historical closeness of slavery, southern myths about Reconstruction, and Jim Crow directly impacted their interpretations of the past. The racial and paternalistic ideas of the southern plantation remained well after slavery's demise; more importantly, they colored the ways in which historians relayed the past. Equally, as historians came to understand the nature of the slave trade, they found it harder to accept the idea of cultural continuity and creativity. As Sidney Mintz and Richard Price, the slave trade was rife with physical and mental abuse—abuse that undermined culture. "[S]hackled together in the coffles, packed into dank 'factory' dungeons, squeezed together between the decks of stinking ships, separated often from their kinsmen, tribesmen, or even speakers of the same language," slaves were left bewildered about their present and their future," and were homogenized by a dehumanizing system that viewed them as faceless and interchangeable."⁹ Furthermore, historians have tended to focus their inquiries not on the people themselves, but rather on macro-level questions about the causes and consequences of slavery and the slave trade.

⁸ Peter J. Parish, *Slavery: History and Historians*, Preface X

⁹ Sidney Mintz and Richard Price, "The Birth of African-American Culture," Stanley Engerman, Seymour Drescher, and Robert Paquette, eds., *Slavery* (New York: Oxford University Press, 2001): 255-257.

While passing over “slave-culture,” and the realization that a new culture was being birthed, many historians focused on underlying causes of the slave trade. These underlying causes references back to the different historical schools of thought that emerged during the Atlantic Slave Trade Era and afterwards. Some historical schools of thought included economics, societal, and cultural causes for the Atlantic Slave Trade. Eric Williams, author of “Economics, Not Racism, as the Root of Slavery,” discussed the economics behind slavery, and therefore, the Atlantic Slave Trade: “Slavery caused racism, but economic motives, not racial impulses caused slavery.”¹⁰ Williams wanted to dispel the notion of racism being the root of slavery. He expressed that “unfree labor” was of all colors and no one was exempt including, “brown, white, black, and yellow; Catholic, Protestant, and pagan.” Although he understood that racism played a major role in perpetuating the institution of slavery, racism was not the cause of slavery: William wanted to show the clear difference between the two concepts. It made more sense to have African slaves than European or other groups due to various economic principles.

Winthrop Jordan saw slavery and racism were the direct start and cause of one another. He stressed “slavery’s intellectual and psychological roots:” meshed with the concept of racism; thus, the Englishmen deemed themselves above the brutes and savages of African natives.¹¹ Jordan focuses on the religious, physical, and cultural differences between the Africans and Englishmen which ultimately led to enslavement

¹⁰ Eric Williams, “Economics, Not Racism, as the Root of Slavery,” in David Northrup, ed., *The Atlantic Slave Trade* (Boston: Houghton Mifflin Company, 2002): 2-7.

¹¹ Winthrop D. Jordan, “The Simultaneous Invention of Slavery and Racism,” in David Northrup, ed., *The Atlantic Slave Trade* (Boston: Houghton Mifflin Company, 2002): 7-14.

and degradation of African natives. The religious difference that existed between the two races is that the Africans were not Christians and therefore were savages, according to the Englishmen's perspective. The physical differences between the African natives and the Englishmen was the central point of division which made the concept of superiority be in the Englishmen's favor. The cultural differences created the Englishmen's thoughts of the African natives as being savages and uncivilized due to them not living the "European" life. Jordan reveals how it was these differences that birthed African slavery and the concept of racism.

In a way, David Eltis continues this line of thinking. For Eltis, although economics and racism played a major role in slavery, the underlying cause of the slave trade was of the cultural difference between the Europeans and African natives. Eltis' argument is similar to Jordan's except Jordan uses cultural differences to explain racism, Eltis argues that the cultural differences mentally and physically stopped Europeans from enslaving their own to the degree in which they enslaved the African natives. According to Eltis, it was "[T]he unconscious exemption from enslavement Europeans gave themselves."¹² He expresses that in order to understand the role that culture played in the Atlantic Slave Trade, people must first "explore the labor options of early modern Europeans" and "Europeans set slavery apart a status for others;" Eltis expresses understanding those two concepts will "clarify the cultural and ideological

¹² David Eltis, "The Cultural Roots of Slavery," in David Northup, ed., *The Atlantic Slave Trade* (Boston: Houghton Mifflin Company, 2002): 23-27.

parameters that at once shaped the evolution of African New World slavery and kept Europeans as non-slaves.”¹³

Other historians have highlighted the ways in which slavery and the Middle Passage contributed to the destruction of an African culture. This seems sensible; consider the various negative aspects, such as the brutality of slave owners, and the mental and physical degradation of slaves, that manifested itself from the African Slave Trade. Olaudah Equiano’s life experiences speak to slavery’s destructive forces. In “An African’s Ordeal,” Equiano expresses the traumatic experience he faced when being sold into the slave trade: “These filled me with astonishment, which was soon converted into terror, which I am yet at a loss to describe nor the then feelings of my mind.” Equiano felt bewildered and scared while being sold into slavery, a feeling that many slaves felt: “[I] was now persuaded that I had gone into a world of bad spirits, and that they were going to kill me.”¹⁴ How was it possible for a culture to form while slaves faced the atrocities of the Atlantic Slave Trade?

Still other scholars have emphasized how the slave ship blended so many different African cultures that it was impossible to retain or forge a singular culture. According to Marcus Rediker, author of *The Slave Ship*, approximately 12.4 million Africans were loaded and carried onto slave trips through the “Middle Passage” across the Atlantic, and sent to hundreds of delivery points stretched throughout the Atlantic region.¹⁵ Although this total is open to debate (records cannot accurately show the

¹³ David Eltis, “The Cultural Roots of Slavery,” 24.

¹⁴ Equiano, “African’s Ordeal,” 68.

¹⁵ Marcus Rediker, *A Slave Ship: A Human History*, (New York: Viking, 2007): 9

amount of slaves traded throughout the Middle Passage and Atlantic Slave Trade), what cannot be argued is that among that 12.4 million existed thousands upon thousands of different ethnic groups, tribes and communities. Essentially, among that 12.4 million could have existed much tension and rivalry between particular groups concerning traditions or beliefs: the new “mix” of slaves that existed could have resulted in the birth of a new culture because there was thought to be no distinct cohesiveness among such groups. The next reason why a birth of culture could not have existed is because of the new lifestyle that awaited slaves once they entered the New World.

Finally, one can argue that the very change of lifestyle for African slaves in colonial America was the deconstruction of African traditions and ideals: the death of a culture. The assimilation process that African natives endured was essentially the foundation for infantilizing them; the planter elite of colonial America found it imperative that the slaves “know their place,” and ultimately grow to be fond of it. By stripping them of their native culture, placing them in a new environment, and using a paternalistic approach, the planter elite of America were able to transform the African native, into the perfect worker: the Sambo. As Stanley Elkins explains it, slaves were infantilized: they were grown men and women with a “child-like” mind. “Sambo” was the ideal slave, “docile but irresponsible, loyal but lazy, humble but chronically given to lying and stealing; his behavior was full of infantile silliness and his talk inflated with childish exaggeration.”¹⁶ In short, the planter elites’ methods of infantilizing the African slaves was a clear and distinct destruction for the native African culture. In all, one can argue

¹⁶ Stanley Elkins, *Slavery: A Problem in American Institution and Intellectual Life*, (Chicago: University of Chicago Press, 3rd Ed. 1976): 81

that it is most likely impossible for a new culture to develop among conditions preventing it, but further analysis reveals that there was a distinct birth of African culture in colonial America, laying the foundation for the African-American culture that exists in society today.

In recent decades, historians have taken up the task of acknowledging the “neglected” and “ignored” aspects of history. Lawrence Levine, is one such historian. According to Levine, “It is time for historians to expand their own consciousness by examining the consciousness of those they have hitherto ignored or neglected.”¹⁷ Here, Levine faults historians, including himself. Levine desperately urges historians to write for the people who never had a voice, and express that people in the position to record, historians, be concerned with a slave population that never had the opportunity to tell its story. Gary Nash, Like Levine, Gary Nash came to the understanding that it was time for historians to include other people in the historical narrative. As an historian, Nash admits that the changing times of American society demand answers for the “neglected” aspects of their history Nash felt obligated as a historian and teacher to provide his students a more advanced analysis. With the help of other historians, Nash is able to create this book referencing some of America’s “glossed” over historical events, such as the Atlantic Slave Trade. This, once again stresses the linkage between history and education. Like Levine, Nash urges historians of his era to uncover what prior historians neglected and ignored.

¹⁷ Lawrence Levine, *Black Culture and Black Consciousness: Afro-American Folk Thought from Slavery to Freedom*. (New York: Oxford University Press, 1977). (Preface).

Culture

The birth of African-American culture in the New World due to the Atlantic Slave Trade was inevitable. While it is true, that slaves were forgotten and neglected, the legacy they left behind irrefutably laid the ground work for a new culture. Knowledge of slavery throughout different eras could not prepare historians for the new lifestyle that was going emerge. The usage of biblical scriptures to strengthen paternalistic beliefs also ignited new ones among the slave population. An environment that was meant to strip and weaken the slave actually created a resilience and strength that can be found today among the African-American community. Essentially, as much as historiography has revealed the neglect and unawareness of slaves, it has also revealed the strength and courage of them, and all that the historians have missed out on: until now. The vibrant culture of the African-American community today can be traced back from an enduring path: the “slave-culture” of colonial America.

As Levine suggests, “Culture is not a fixed condition but a process...[a] toughness and resiliency as determined...by its ability to react creatively and responsively to the realities of a new situation.”¹⁸ Slave-culture, for the sake of this paper, is defined as the folkways, values, and beliefs that developed among the newly enslaved African natives in the hostile environment of the New World. “Slave-culture” is understood as a separate from (or developing alongside of) the dominant culture of slave owners and the whites. These groups saw the African natives as slaves; as nothing more than property to the plantation owners. Yet, this “property” was able to establish a culture which still exists today. Essentially, “slave-culture” is the predecessor

and cornerstone of African-American culture in today's society. This was, in essence, a sense of resilience among the African natives: they were encouraged to not be broken by the harsh, cruel life as slaves that awaited them in the New World. This new way of life started the moment African-natives of different ethnicities and groups became confined to the general living space aboard slave ships during the slave trade. Indeed, as Mintz and Price make clear, the slave ship was the site of "significant cooperative efforts which, in retrospect, may be viewed as the true beginnings of African-American culture and society.¹⁹ For Mintz and Price, the very shackling of and putting together of slaves from all over the world created an unspoken resilience that can still be seen in today's African-American society.²⁰

On the slave ship, people from different ethnic and religious backgrounds came together to maintain old customs and create a new culture. Indeed, the Atlantic Slave Trade forced various ethnic groups to abandon all personal beliefs and unite as one. Rediker demonstrates how the new culture among the slave population was birthed on the waters, during the Middle Passage. "In the shadow of death," Rediker asserts, "the millions who made the great Atlantic passage in a slave ship forged new forms of life-new language, new means of expression, new resistance, and a new sense of community.²¹ Unlike the African continent which consisted of various groups, the Atlantic Slave Trade could not: without the bondmen ship that slaves gained from interacting with one another, it would not have been possible to survive, especially the

¹⁸ Levine, *Black Culture and Black Consciousness: Afro-American Folk thought from Slavery to Freedom*, 4-5.

¹⁹ Sidney Mintz and Richard Price, "The Birth of African-American Culture," Stanley Engerman, Seymour Drescher, and Robert Paquette, eds., *Slavery* (New York: Oxford University Press, 2001): 255-257.

²⁰ Mintz and Price, "The Birth of African-American Culture," 255-256

formation of a whole new culture. The Atlantic Slave Trade, in the words of Rediker, was the “maritime origin of culture” for the African natives.²² This essentially laid the foundation of culture for African-Americans. During the slave trade, thousands upon thousands of ethnic groups met and exchanged languages, beliefs, values; literally transforming old into new. Slavery in colonial America was the application of the new culture that developed along the slave trade.

The slave culture that began in the Atlantic was able to transition into the United States. As time passed, and the African natives bore children, the culture only grew and became more developed. Many aspects of the slave culture that developed in colonial America manifested through the relationship between the slave and slave owner. As seen from Stanley Elkin’s theoretical explanation of the slave “Sambo,” a very specific relationship existed between the slave and the slave master. Despite this, slaves surprised their masters with their unique abilities in music: an important aspect of their newly culture. According to Levine, “White southerners, no matter how much they might denigrate the culture and capacities of their black bondsmen, paid tribute to their musical abilities.”²³ Music was one of the stronger aspects of new founded slave culture because it originated from the natives’ homelands in Africa. According to Levine, “In Africa, songs [served] the dual purpose of not only preserving communal values and solidarity but also providing occasions for the individual to transcend.”²⁴ Music was not only a form of celebration and victory, but also means to escape from their environment.

²¹ Rediker, *The Slave Ship: A Human History*, 265

²² Rediker, *The Slave Ship: A Human History*, 265

²³ Levine, *Black culture and Black Consciousness*, 5.

²⁴ Levine, *Black Culture and Black Consciousness*, 7.

Its impact on the African natives transitioned into the new slave culture in colonial America. Slaves were able to use their prior experience to impress and entertain their masters and planter elite. This laid the groundwork for multiple subgenres such as blues and jazz, gospel, which later transitioned into rap and hip-hop. Slaves introduced concepts such as improvisation and melody into their music which created a unique style never seen before. Through music, the African natives were able to create a voice for themselves: their creative abilities in music is one aspect of many that came out of the slave culture in colonial America.

This culture was a product of religious syncretism; they incorporated certain aspects of the American culture and combined it with their traditional African culture and created a whole new culture. From the planter perspective, Christianity became a link between the master and slave: using Christian principles, many masters expected the slave to be obedient and listen at all times, being just like "Sambo." However, although many slave owners used Christianity to control slaves, many of the latter employed it to their own advantage. Religious syncretism revived and maintained old traditions, as also it made room for new traditions. Christianity became "Africanized" allowing slaves to maintain/incorporate certain African beliefs, and lay the foundation for religion in the African-American community today. According to Genovese, "It enabled them [Africans] to retain enough of Africa to help them create an appropriate form for the new content they were forging and to contribute to the mainstream of American national culture while shaping an autonomous identity."²⁵ Christianity ultimately helped

²⁵ Eugene Genovese, "Religious Foundations of the Black Nations," Stanley Engerman, Seymour Drescher, and Robert Paquette, eds., *Slavery* (New York: Oxford University Press, 2001): 274-276.

the African slaves: by taking what they learned, they gained a deeper understanding of their own identity, and forged an even greater resilience to slavery. They developed the audacity to believe that there was more to life than just being slaves, adding to the escapism that they need to survive their circumstances. This new spin on religion also contributed to “spiritual songs” such as “Go Down Moses,” Let Us Break Bread,” and “Wade in the Water.” The creation of these songs reveal the understanding and the importance of Christianity to the African slaves and its incorporation into their new lives. Indeed, biblical tales such as Moses leading the Israelites out of Egypt into the Promise Land allowed Africans to adapt to their changed environment, and maintain their African heritage.²⁶ Stories like these were embraced by African natives, not only to help them adapt and survive. Both music and religion manifested as major aspects of the new culture that developed among slaves in the United States and led to African-American culture today.

Finally, the modern African American community the most visible and incontrovertible evidence for the maintenance and development of culture amid slavery and slave trade. Defining it as a subculture, Dr. Johnnetta Cole first expresses the difference between culture and subculture: “When a people share a learned set of values/ attitudes and behavior patterns which are distinctive to them, they possess a culture; when the distinctive patterns are restricted to certain areas, while others patterns are drawn from a mainstream pool, a people possess a subculture.”²⁷ Referencing back to the subculture as “negro culture,” Cole explains the specific

²⁶ Exodus, Leviticus, Numbers, Deuteronomy. (King James Version)

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aspects that make up the African-American subculture the way it is. The second point that Cole delves into is the “soul and style” of the “negro culture.” Essentially, Cole describes how the concept of both style and soul are both vital aspects in the lives of black Americans. It has been etched into what it means to be “black” and therefore help establish the “negro culture.” The last point that Cole uses to support the existence of a “black” subculture is the lifestyles that exist due to it. She gives four, diverse examples of different lifestyles that connect back to “black” subculture: “street, down-home, militant, and upward bound²⁸.” Each one of Cole’s points dates back to the “slave culture” that existed during and after the Atlantic Slave Trade. In all, the African natives who were forced to come to an unknown world were able to create a new culture and that should never be forgotten. Historically, they have been lost, but their accomplishments are still manifest the part they played in today’s society.

Although the planter elite saw slaves as weak, susceptible, and just good for work, the slaves’ resilience and sacrifice helped shape and refine the culture that was created, ultimately laying the groundwork for the African-American society. African-Americans, the descendants of the natives were born into this culture, perpetuating what their forefathers did. Migrating throughout the centuries, this “slave-culture” that developed among the African natives transitioned and work its way throughout the ages, revealing “glimpses” of what the culture actually was. From slavery in colonial America to Reconstruction during the Post-Civil War era, the Harlem Renaissance to

²⁷ Johnnetta Cole B, “Culture, Negro, Black, and N*****.” (*Black Scholar* 44, no. 3 *America: History & Life*, EBSCOhost): 52-57

²⁸ Johnnetta Cole B. “Culture: Negro, Black, and N*****.” 57

the Civil Rights Movement, the culture of the African-American community has become solidified through time.

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Robinhoods in Pinstripes

Orange County Community College

Panel: Interdisciplinary Studies

Mentors: Professor Elaine Torda and Dr. Heidi Weber

Robinhoods in Pinstripes

Al Capone stated, "This American system of ours, call it Americanism, call it Capitalism, call it what you like, gives to each and every one of us a great opportunity if we only seize it with both hands and make the most of it" (Simkin, p. 1). Coming from one of the most infamous gangsters of American history, this quote can give a new perspective into the life of those involved in organized crime. The word "gangster" connotes violence, crime, and similar negative words, and rightfully so. Prostitution, drug trades, and the like were activities of those considered gangsters. According to Waite (2010), a gangster is "a member of an organized gang of violent criminals" (p. 335). This paper focuses on, but is not limited to, the American gangsters – those involved in organized crime, such as Al Capone, "Lucky Luciano," and Meyer Lansky – from 1920, during Prohibition, until the 1980s. During this time, organized crime was an acknowledged part of society. Some Americans often have a harsh critical lens of them. Yet criminal behavior and activities sometimes have more than what meets the eye. American gangsters often performed illegal activities because of circumstances already present. Due to the association with illegal actions and violence, many people assume gangsters are different from everyday citizens. However, as Al Capone stated, organized crime was a means to gain opportunity. The reasons some individuals resorted to organized crime are endless, but many point to deeper underlying societal problems. This research does not argue against gangsters' violent crimes, but provides different perspectives on why these activities occurred. More specifically, this paper focuses on those involved in American organized crime, including those in the mafia or mobsters, with minor touches those involved only in gangs.

Some American citizens created fantasized images of gangsters; seeing them as having exciting, luxurious, risky lives that many are too afraid to live themselves because of the consequences. Gangsters did, essentially, what most citizens aspire to do: rose through the ranks to wealth, success, and happiness. Gangsters participated in multiple illegal activities to do so: racketeering, prostitution, the drug trade. American gangsters were part of American culture; countless movies, books, and documentaries have been made about seemingly invincible men and women living lives of crime, but doing it well. While people are not interested in the violence associated with gangsters, they are entranced by Hollywood's romanticized portrayal of them. Those involved in organized crime chose to disregard societal laws and regulations and create their own rule books. Some Americans perceive this independence and boldness as brave, even admirable. The irony is that most gangsters dreamed of living the American dream. Capone summarizes what gangsters hoped to do: make the most of the situation and seek what America offered. Their goals were not to foster violence or discard the rule book, but rather to have families and be successful. In this way, gangsters were not much different from every day citizens. Although American gangsters have been considered notorious and violent criminals, some proved themselves to be more similar than different to everyday people; in influential and inspiring ways, some have even given back to their communities and/or to the country. This concept will be examined through psychological and sociological means, describing the positive impacts the gangsters had on society.

To many people, gangsters are psychologically different than everyday individuals because of their violent and murderous tendencies. People who commit

murders must have different psychological or personable traits. According to Mattiuzzi (2008), individuals who kill can be insane, paranoid, or over-controlling and hostile.

Many people believe that a life of crime can be caused by twisted views. While most individuals who had a hard time financially during the 19th and 20th centuries turned to hard work and patience, gangsters turned to violence for upward mobility. To some, that could be perceived as a “twisted idea of what is right, what is wrong, and what is necessary,” characteristic of an insane person (Mattiuzzi, 2008, p.1). A killer who is paranoid demonstrates jealousy, typically of his/her significant other and of assumptions of his or her infidelity. Madame St. Clair, one of the more well-known female gangsters, could be categorized in such. According to Harris (2008), St. Clair, assuming her husband was having an affair, shot and wounded him. Instead of rationally confronting her husband, she resorted to violence and almost ended his life, which can be considered paranoid. The over-controlling and hostile type of killer, as Mattiuzzi (2008) explains, rarely displays or expresses anger, and people claim that they would not have expected the violence because they believed the individual was nice. This was the case with Meyer Lansky. In his daughter's book *Daughter of a King*, Sandra Lansky (2014) describes her experiences being the “mob accountant's” daughter. She claims that for a long time, she had no idea that her father was one of the most infamous mobsters in history. He brought her to fancy restaurants, never got angry, and treated her like a princess (Lansky, 2014). These family-oriented and caring traits are common to the hostile and over-controlled type of killer Mattiuzzi (2008) describes, leading many to believe that gangsters were psychologically different from everyday citizens.

Although gangsters, on the surface, seem to have traits similar to killers, they

are, in fact, more psychologically similar to everyday Americans. Gangsters have characteristics, intentions, and beliefs similar to, if not the same as, everyday citizens. According to a study conducted by Schimmenti, Capri, Barbera, and Caretti (2014), Mafia members, when interviewed, exhibited no psychopathic characteristics; they did not demonstrate constant thoughts about killing or violence. Instead, they killed out of survival. Mafia members received low PLC-R scores, which are “diagnostic tool[s] used to rate a person's psychopathic or antisocial tendencies” (Hare, n.d.), interpersonal and affective scores, and lifestyle test scores (Schimmenti, Capri, Barbera, and Caretti, 2014). Although the Mafia members showed antisocial traits, they maintained an emotional connection with their families and close friends. They were less manipulative, narcissistic, parasitic, or impulsive than other participants. For most gangsters, criminal activities were led by devotion and loyalty to their families or cooperation with their family's goals rather than personal interest. Although they committed crimes, their actions were not without emotion, suggesting similarities to every day citizens (Schimmenti, Capri, Barbera, & Caretti, 2014). Often gangsters avoided harming civilians and attempted to stay within their communities where they could climb the social ladder. When Lucky Luciano murdered other rival gang members, he sent flowers to their funerals (Szandzik, n.d.), which was not uncommon for gangsters. According to Kelly (1986), “organized crime in the United States (1) was not some random or episodic thing; but a patterned and structured activity. . .” (p.43). Killings were not always personal; organized crime was a business, and actions such as sending flowers to another man's funeral demonstrated that the murder might not have been personal but merely a part of life. Similarly, according to Lansky (2014), although her father

Meyer Lansky participated in criminal activities, he did not do so out of pure evil . His actions were motivated by wanting success for his family. These individuals wanted better lives; psychologically, many Americans can relate.

Although many families resorted to nonviolent means and patience to achieve the American dream, for some this was not enough; some American gangsters tried to climb the social ladder legally, but found opportunities. Due to the racism, discrimination, and poverty present in the early 19th and 20th centuries, ethnic gangsters chose to use means other than what was socially acceptable to achieve success and support their families. They wanted quick results, specifically in the work force. They had difficulty obtaining jobs, and if they did procure them, sometimes the wage was not enough. According to Bourgois (1989), “The culture of resistance that has emerged in the underground street-level economy in opposition to demeaning, underpaid employment in the mainstream economy engenders violence” (p.4). More often than not, illegal activity occurred because of societal situations. Because of the limited jobs offered in impoverished, inner city areas, violence festered and gangs formed. Racism and discrimination led to being denied even when individuals sought work. O’Kane (1993) states that the ladder to success and the American Dream for immigrants was bent. Oppression meant the success implied by American society was not easily obtained. Although many individuals wanted to get jobs and work for success, prejudice and signs such as “Jobs available-Irish need not apply” prevented minority groups from doing so (O’Kane, 1993, p.11). Organized crime became a way to achieve upward mobility.

American gangsters are people who took matters into their own hands. When peaceful protests did not work, Stephanie St. Clair used organized crime as means to

achieve equality. According to Harris (2008), she was a prime example of African Americans using the underground economy as a means to address race politics and resistance against poverty, unemployment, and discrimination. In the early 1900s, St. Clair stood out from other gangsters for her persistence, elegance, and early feminist and race beliefs. As one of the only females to be at the forefront of organized crime, she reshaped people's perceptions of women at the time. Instead of being submissive and quiet, she fearlessly faced white gangsters, calling them out publicly for their unequal treatment of blacks. She was angry and disappointed if her community members failed to fight against white supremacy. Her efforts showed that political and socioeconomic factors, such as legislation and actions, impacted African American women; women used crime to manipulate the sexist and racist environments. St. Clair ran a successful numbers game, employing many workers. It was an illegal lottery system, played in poor neighborhoods: gamblers placed bets with bookies and runners carried money and betting slips between parlors and headquarters. Through this, St. Claire provided jobs to countless black men and women, which was necessary in a community that refused them jobs (Harris, 2008). Harris (2008) states, "Despite the labor demands of World War I, many black men and women were unable to secure industrial jobs. Most labored in unskilled jobs and received less pay than their white counterparts" (p.56). Because of these conditions, people such as St. Clair used creativity to find jobs. She organized groups to assist foreign black men and women who had recently moved here in adjusting to American life and encouraged them to become citizens. Although a gangster, St. Clair impacted her community by positively influencing other black immigrants to speak out against oppression, racism, and

discrimination. She encouraged them to define themselves beyond white boundaries, and used the numbers business as a platform to do so. Although she resorted to violence, St. Clair's message and efforts to have a more equal America were shared with many individuals during the time (2008).

Many critics argue that gangsters negatively impacted the community and used the Prohibition Era (1920s) as an example. During this time, the economy was beginning to fail. According to Nash (2011), "Jobs were scarce and people needed to provide for their families, gangsterism was dangerous but provided an easy way to make money" (p.1). Specifically, in Chicago, home to one of the most infamous gangsters of the time, mob involvement was heavy and Al Capone was a prominent figure. According to Trueman (2015), "Capone was earning \$60 million from alcohol sales alone" (p.1). He ran his business with the help of many Americans who, through involvement in criminal activities, were able to support themselves and/or their families. Because many people resorted to organized crime to make a living, Prohibition did the opposite of its intentions. Americans were promised a reduction in crime through the regulation/ban of alcohol, yet higher crime rates and excessive violence resulted. American gangsters supplied access to the illegal alcohol, therefore contributing to the 44% increased arrest rate for drunkenness from 1920-1921. Because of this, a 50% increase in deaths due to alcoholism occurred in 1921. According to Towne (1923), theft and burglaries, homicides, and assaults increased as well. Later research supports this; according to Thornton (1991), "arrests for drunkenness and disorderly conduct increased 41%, and arrests of drunken drivers increased 81%" (p. 6). Crime rates rose partly because prices increased on prohibited goods. Gangsters not only distributed

alcohol, but also opened illegal bars and saloons. The latter facilitated access to alcohol because people had places they could drink or purchase it.

Organized crime undeniably fostered negative impacts on society during Prohibition, but it had some positives. The government, at the time, believed that by executing a ban on the production, importation, transportation, and sale of alcohol, less crime would occur. Only drunkards, they believed, murdered, stole, or treated their wives badly (Towne, 1923). However, Prohibition did not stop heinous crimes: sober people were capable of these crimes as well. Prisons still were populated and houses still were robbed, even though alcohol was banned. Towne (1923) lists numerous cities where arrest rates went up during Prohibition, Baltimore and Chicago being two. The ban simply made some people angry. Gangsters, to some Americans, became the heroes. They essentially gave the communities what they wanted. Americans who desired alcohol would obtain it one way or another, and gangsters provided the means to do so. When saloons and speakeasies opened, they provided accessibility. Without gangsters, alcohol might have been illegal for a longer time; they showed the government that the ban was unsuccessful as consumption and crime still occurred. Restricting something from such large numbers of people only increased their desire to obtain it, leading to more crime and illegal activity.

Organized crime during Prohibition also provided employment; jobs at that time were scarce but crime provided some with the financial means to support their families. According to Kelly (1986), “Prohibition began with fairly free and open competition in the marketplace” (p.44). Free competition created many conflicts, but eventually, gangsters and those involved in organized crime became aggressive entrepreneurs, beating the

competition. For struggling everyday citizens, Prohibition offered a chance to make extra cash on the side; gangsters and gamblers needed employees for “transporting, guarding, and distributing shiploads of ‘booze’” (Kelly, 1986, p.45). For successful bootlegging to occur, many other jobs were necessary as well. According to Kelly (1986), bootlegging requires “sources of supply, a means of collection- ships, offloading boats, landing sites, trucks, drivers, guards, warehouses- and bars, clubs, restaurants, speakeasies, and other means of distribution” (47). Instead of working at a bar or saloon before Prohibition, people had more job options, as obtaining alcohol was a complex process.

Many individuals believe that gangsters were responsible solely for negatively impacting society through prostitution rings. Some gangsters ran prostitution organizations, continuing their business behind closed doors, so to speak. Prostitution, in general, is seen as negatively impacting society because it dehumanizes women and encourages the stereotypical roles of submissive females (Farley, 2010). Women are seen as objects and as a stimulant to an individual's pleasure. Everything that makes a woman unique is taken away; she is no longer a person. In most cases, women who subject themselves do so because of desperate measures; they need to support a family or themselves and lack better options. However, this illegal work is dangerous; according to Farley, “Women in prostitution have the highest rates of rape and homicide of any group of women ever studied” (2010, p.1). They are verbally and physically abused; payment does not erase or dismiss cases of rape or sexual assault. When gangsters are involved, the image of prostitution can become even more disturbing. Any activity that made the gangsters money was considered a business. The women were

considered part of business deals. Lucky Luciano ran a prostitution ring known as “The Combination.” When he was put on trial, nearly thirty women came forward to testify, and one in particular “Brown, who was a drug addict, former madam and prostitute. . stated that she was told by an acquaintance about a madam who was beaten up by Tommy ‘the Bull’ Pennochio on Lucky’s orders” (Cox, 2010, p. 1.). Luciano denied ever seeing the women, despite some claiming to have been entertaining in his hotel suite (Cox, 2010, p.1). They came forward to fight against poor treatment by a notorious gangster. Luciano was powerful, and prostitution run by a powerful gangster can lead to issues of control, dominance, and abuse, as the women claimed. Luciano, in particular, was said to have run countless New York City brothels, and when convicted, faced over sixty counts of prostitution (Cox, 2010). He was just one of many gangsters involved in harmful prostitution rings.

Although gangster involvement in prostitution is undeniable, under most gangsters, it could be considered more safe. This was a business. According to Albanese (2011), prostitutes were paid by pimps, but they would also pay the pimps for services in return; “These services might include renting a ‘safe’ hotel or rooms for the prostitutes to ply their trade and screening of customers so that the threat of dangerous, unhealthy, or suspected undercover police officers is reduced. Without these services, street prostitution is a much more dangerous and threatening business” (p. 52). For most gangsters, receiving pleasure and making money from customers were prioritized; in doing so, keeping the women, employees, safe and healthy was also prioritized. Areas known as red-light districts were sometimes run by gangsters. These districts associated with the sex-trade included many brothels and establishments for business

to occur. According to Grant (2013), “In addition to creating a measure of safety for women by giving them a reasonably safe space to work, brothels created employment opportunities for house staff” (p. 1). Women were fed, bathed, and guaranteed shelter and protection. They also afforded multiple types of jobs aside from prostitution. Areas that were purely for this business and actively monitored meant fewer police raids. As a result, work could continue uninterrupted (Grant, 2013). Fewer raids meant increased profits. While prostitution was not ideal, safer was better. Also, some had no other option or chose to do so regardless.

In the 19th century, brothels and prostitution organizations were sometimes run by women. Females involved in this avenue of organized crime had a major influence on women at the time. According to Russell (2010), “When women were barred from most jobs and wives had no legal right to own property, madams in the West owned large tracts of land and prized real estate” (p. 1). Wealth and ownership of land for women sometimes came from prostitution. Madams, or the female bosses of prostitutes, provided opportunities and equality for women. Some employers even gave women free health care or provided a market for free contraceptives (Russell, 2010). These madams encouraged women to step outside of their socially constructed constraining circle and embrace their sexuality by providing clothing, makeup, and other perks to employees. One madam, Jennie Rogers, otherwise known as the “Queen of the Colorado Underworld,” owned multiple brothels, providing her employers with “personal hairstylists and dressmakers, ensuring that they were among the most stylish women in the world” (Russell, 2010, p.1.). Because of this feminine encouragement, some argue that “prostitutes were the first women to break free of what early American feminists

described as a system of female servitude" (Russell, 2010, p.1.). Possibly the most important impact of prostitution was enabling women to break free of the social barriers and in small ways, achieve similar rights to men.

Gangsters arguably played a significant role in controlling the market economy as well. Critics suggested those involved in organized crime made money from their communities. Some gangsters required privately owned businesses to pay money for guaranteed "protection" (Kumar, 2008). These small businesses often had no choice but to comply; if they refused this protection, their business could be burned down or broken into (typically by the gangsters who offered the protection in the first place and were denied). By making arrangements with the gangsters, owners paid large amounts of money to ensure that no harm came to their shops. This often happened in multiple shops or restaurants around the same area. According to Kumar (2008), owners in the same area could not band together to form some sort of contract or patrol system because "forming such self-governing protection groups involves substantial coordination costs and as group size increases the free-rider problem becomes more serious" (p. 7). While having the community come together to protect against mediocre theft is one thing, protecting shops and businesses against a gangster's, such as Al Capone's, heavily armed men was different. The Mafia provided protection, but shopkeepers and business owners had to remember that the "gun can be turned not just against potential transgressors but also against those it is supposed to protect" (Kumar, 2008, p.2).

The Mafia's involvement was not limited to business owners; it was known to use the protection scam in labor unions, construction companies, garbage collection,

transportation, and the New York garment industries. Aside from protection, gangsters also engaged in many forms of bribery, to protect this form of activity. During the early 1900s, many police officers or public officials were crooked and willing to accept bribes. Bribery allowed gangsters to divert attention from the manufacture and shipment of alcohol during Prohibition (Kelly, 1986). According to Kelly (1986), "They had the organization, the networks, and the capital to call the shots and turn the tables. They also had vast influence of judicial, law enforcement and political corruption" (p. 49). Organized criminals had some degree of protection because of bribery. The market economy, essentially was in their control. Because of this freedom, organized crime grew, and many criminals stayed out of jail. They did not worry about public officials or the consequences of their crimes because supposed upholders of the law often could be bought, bribed, or threatened. During Prohibition, gangsters made large profits, consequently endangering many lives.

Although gangsters arguably controlled the market economy during the time, they sometimes unintentionally and deliberately helped businesses. While they prominently controlled enterprises for their own self-interest, they subconsciously assisted the companies as well. Providing 'protection' to businesses advertised them as safe places to bring friends or do business in. Thus, more money was brought in. Bribes, common among public officials and gang members, allowed many gangsters to continue their work. In some cases, this was positive. Many involved in organized crime did so as a means to help their families or communities. Through these activities, they supported their families and returned some of their profit to the neighborhoods. This giving back occurred in multiple ways, ranging from every day acts of kindness to

serving in the United States military. Al Capone, an infamous gangster, is lesser known for his impact during the Great Depression. He opened one of the first soup kitchens, employing some and feeding thousands more. According to Bergreen (1994), Capone's kitchen served nearly 5000 people daily for breakfast, lunch, and dinner. Many individuals claimed that He did "more for the poor than the entire US government" (p.400). He used money from bootlegging to purchase over 1,000 pounds of beef to give meals to the poor. Through his soup kitchen, he gained many admirers and he sympathized with those in need, claiming that the government was wasting time trying to prosecute people like him when it had more pressing issues, evidenced by how many people needed food (Bergreen, 2014). Capone was not the only gangster to positively impact society.

According to Walker (2010), in New Orleans during the 1900s, many Americans viewed jazz as black and criminal music. The Sicilian mafia controlled most of the city's economy at the time, and because of it, opportunities existed for jazz musicians regardless of race. Walker (2010) states, "Had it not been for the mob, Louis Armstrong, the legendary Jazz singer, may have never got the break to make history" (p. 2). He was able to perform at gangster owned clubs where his music was positively received despite his race. White gangsters hired musicians such as King Oliver, Fletcher Henderson, and Benny Goodman to perform at their saloons and speakeasies, consequently, helping jazz become a national phenomenon. Another influential gangster, Arnold Rothstein, financed the opening of several historical businesses on 42nd street that attracted millions of people to Broadway. He backed the opening of the famous Selwyn Theater, assisting Broadway in becoming the "first entertainment capital

in America" (Walker, 2010, p.2). In these ways, gangsters gave back to the communities from which they took so much.

Most gangsters gave back to the community on smaller scales but a few went as far as serving the United States. Meyer Lansky and "Lucky" Luciano assisted America in big ways. During World War II, the Normandie, a French luxurious liner, was taken over by the U.S. War department and then destroyed by what the U.S. Navy suspected was Nazi sabotage. Because the mob controlled the New York waterfront, gangsters and the government joined forces. The infamous Lansky was asked for help because the government knew he "had been waging a campaign of intimidation against domestic Nazi sympathizers" (Dezenhall, 2011, p.2). Lansky, Jewish himself, was horrified by Nazi activities in Europe. Due to his age and height, he was rejected for service in the Army, but he provided the U.S. with crucial assistance in a different way. In "Operation Underworld," he and fellow gangsters "Bugsy" Siegel and "Lepke" Buchalter broke up Bund rallies and used violence as a means to send messages to Nazi sympathizers. Lansky and his gangsters stopped Nazi saboteur plans to blow up railways, chemical plants, and Jewish-owned department stores before they even began. Lansky also encouraged Luciano to cooperate with the Navy. Luciano provided contacts to the Sicilian Navy to assist with invasions and gave information concerning possible enemy attacks (Dezenhall, 2011). These gangsters assisted the government partly to show their patriotism, a common trait among many Americans at the time. Although many gangsters performed violent, illegal activities, they also enhanced the community in multiple ways.

Throughout the 19th and 20th centuries, most Americans tended believe in the
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American Dream and used hard work and legal activities to achieve it. Yet some citizens grew up in difficult circumstances, and achieving the dream was more challenging than expected. Dedication and ambition sometimes failed. Some men and women turned to lives of crime to achieve social mobility; they chose to climb the crooked ladder. However, the organized crime they pursued was just that: organized. American gangsters attempted to keep those activities in their own sphere, harming civilians as little as possible. Although they pursued success and wealth from different ways than most citizens, their goals and motivations were similar if not the same to everyday people. Some desired to fight racism, oppression, and discrimination, but turned to criminal activities to be heard. Many individuals of the time resorted to nonviolent means, but American gangsters wanted change and equality immediately and did not want to wait for them to come. Because of the violence gangsters engaged in, many people believe that they were psychologically different than everyday citizens, yet their motivations and morals were similar. They typically engaged in criminal activities to support their families, to survive, and to make a living for themselves. Most gangsters were members of ethnic minorities, and because of the social limitations they were presented when they arrived in America, moving up the social ladder was challenging if not impossible. Crime, although not ideal, was effective for the circumstances.

Sociologically and psychologically gangsters have proven themselves to be more similar to than different from everyday citizen. Involvement in the Prohibition Era and prostitution rings gave Americans a bad perception of gangsters, and rightfully so. However, in more ways than one these men and women gave back to their communities and to the country.

First perceptions of gangsters are often negative: violent, mean, dangerous.

While these are true to extents, remembering that they were human, with similar characteristics and desires of everyday citizens, is important. Organized crime and American gangsters may be the result of bigger social issues at hand. The fact that they needed to turn to violence in the first place hints at underlying problems. Pre-existing factors can influence people's choices. Their neighborhoods were often impoverished, school systems were not funded, parents and guardians worked multiple jobs to put food on the table, and some parent or guardians were non-existent. While not an excuse for the criminal activities pursued, the poor economic conditions and social factors contributed to their decisions; pre-existing factors did contribute to their actions. Violence and crime became business deals; little was personal. All was part of the game they controlled: a way to achieve success, wealth, and the American dream. When faced with discrimination or racism, American gangsters fought back; they did not wait for jobs to open but rather created their own. When faced with protecting and providing for their families, organized crime became a means to do so. Many Americans today focus on gangsters illegal activities, failing to see that the reasoning behind them was not always malicious. Most of these gangsters loved America so much that they used their wealth or success as a platform to give back. Acknowledging that people may have different opinions, perspectives, and beliefs, but in each of us exists both good and bad is important. For most, our hearts are in the right (or similar) places, but our approaches vary. By looking through another individual's lens, one can broaden tunnel vision and focus on the real problems at hand. Multiple sides exist to every story and situation, and although little justifies illegal activities, underlying problems may be causing them. As

Thomas More stated, “If you suffer your people to be ill-educated, and their manners to be corrupted from their infancy, and then punish them for those crimes to which their first education disposed them, what else is to be concluded from this but that you first make thieves and then punish them” (1516, p. 47).

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Shaina Mathews

Eternal Love in Love's Fresh Case

Rockland Community College

Panel: Literature: Women's and Gender Studies/LGBT

Mentor: Professor Stephen Burke

Shaina Mathews
Prof. Stephen Burke
Shakespeare Seminar: Final Paper
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Eternal Love in Love's Fresh Case

Because Queer people have existed for as long as people have existed, it's no surprise they (or she or he) pop up in several Shakespearean plays. Generally speaking, the ultimate goal of theatre is to present truthful tidbits of life to an audience, whether it be to inspire, to provoke, or to entertain; to ignore the imperative facet of queerness is to make a creative world less whole. This is a utopian, though arguably morally sound, perspective, of course. In Shakespeare's time, and likewise in modern times, the queer experience was widely underrepresented in art and stigmatized in society. By cleverly constructing fairly clear hints at queerness in some of his characters, Shakespeare allows queer subtext to deepen an audience's understanding of a character whilst also allowing a glimpse into societal rules and norms Elizabethan citizens might have abided by. In both Twelfth Night and The Merchant of Venice, cross-dressing, homosexual attraction, and homoromantic attraction challenge audiences' perceptions of gender and sexuality. Shakespeare's sonnets are famously far from heteronormative. According to Stanley Wells, Shakespearean scholar and editor of *The Oxford Shakespeare: The Complete Works*, "Shakespeare's most idealized sonnets fall among those that are either clearly addressed to a male, or are non-specific in their addressee" (Wells 1). These prevalent queer themes, addressed four-hundred years ago, ought to encourage constant questioning of modern structuralist ideals of gender and sexuality.

In Twelfth Night, for example, cisgender structures are immediately challenged. The title itself alludes to a time period of light-hearted chaos, when things are prone to flip on their heads,

so to speak: “‘Twelfth Night’, the end of the Christmas season, was traditionally a time of revelry and topsy-turvydom” (Taylor, Wells 719). A shipwrecked Viola transforms herself into Cesario, and because of a newly cross-dressed appearance, is able to take a job in Duke Orsino’s court as a servant. However, it does not seem exceptionally clear why Viola decides to cross-dress. Stranded on the shores of Illyria, her twin brother Sebastian believed dead, she begs of the ship’s captain: “Conceal me what I am, and be my aid/For such disguise as haply shall become/The form of my intent. I’ll serve this duke./Thou shalt present me as a eunuch to him” (1.2. 49-52). Why not navigate Illyria as herself? Becoming a man, she seems to understand, would grant her more autonomy and socioeconomic mobility than being herself: a shipwrecked young woman dealing with recent emotional trauma. Also, by becoming a man, she effectively replaces the empty space left behind in the wake of Sebastian’s “death”.

A monumental moment of queering takes place when Viola speaks the lines "I am all the daughters of my father's house,/And all the brothers too" (2.4. 123-25), rendering her self-perceived identity genderless, or perhaps genderqueer, and uniting the audience in a moment of positive understanding of Viola's/Cesario's personhood. I am not trying to suggest this is an Elizabethan case of an individual "coming out", as we ultimately end the play with Viola, and not Cesario, but this moment does allow for a positively received suggestion of the fluidity and construction of gender. The specification of "father's house" is worth noting, as well. Sharon Holland, author of the essay "Is There an Audience for My Play?", points out: "In this play, boys will be men, and men will be boys, and women do not amount to much in the long run" (Holland 388). In this "father's house" instance, Viola's decision to cross-dress becomes an understandable, strategic route taken in navigating a patriarchal society.

The double-queering of Twelfth Night occurs within the circumstances of how it was initially intended to be performed: with an all-male cast. Not only are we faced with the duality of the actor/audience relationship, of those disguised and those aware of disguises, “all is not what it seems, since they [the audience] know who the ‘real’ men are” (Holland 387), but also with the duality of romance and attraction between characters becoming even more complex, and even less hetero. Viola/Cesario, a woman disguised as a man, intended to be played by a man, who then falls in love with her employer, Duke Orsino, is gay in multiple ways. Viola/Cesario speaks of her love for Orsino: “She pined in thought,/And with a green and yellow melancholy/ She sat like patience on a monument,/Smiling at grief. Was not this love indeed?” (2.4. 111–114); this makes her confession of love a layered moment of hetero love, a love forbidden by the mask of queer love, portrayed by an actor who inevitably queered the love further with his masculinity and the audience’s knowledge of said masculinity. After throwing around “love” so many times, it’s important to note that love is not necessarily the central issue. It is clearly important, and largely what drives Shakespearean comedies, but it is Viola/Cesario’s identity that takes center stage as the primary issue here. The ambiguity of her identity acts as a barrier between herself and a successful pursuit of love. Let’s not forget the Olivia/Cesario dynamic; Olivia falling for cross-dressed Viola, though she believes Viola to be Cesario, feels like a queer moment as well. Not only would these roles have originally been played by men, but it seems unlikely that Olivia’s attraction was based solely on Cesario’s overpowering manliness. In fact, the description given by Malvolio implies not only Viola/Cesario’s adolescence, but perhaps androgyny as well: “Not yet old enough for a man, nor young enough for a boy—as a squash is before ‘tis a peascod, or a codling when ‘tis almost an apple. ‘Tis with him in standing water, between boy and man. He is very well favored, and speaks very shrewishly. One would think his mother’s

milk were scarce out of him" (1.5.155-161).

In *The Merchant of Venice*, we are subject to another instance of women strategically cross-dressing as a means to absorb the same societal power men are allotted. In this case, Portia cross-dresses as a lawyers' apprentice, Balthazar, in order to defend Antonio in court. Though Portia is a woman of status, who probably received an education and seems sharply intelligent, her status as a woman would render her arguments invalid among men in a court of law. There also existed a convoluted set of rules educated women were expected to abide by, as outlined by Lisa Jardine in "Cultural Confusion and Shakespeare's Learned Heroines: 'These Are Old Paradoxes'" :

On the one hand the view is expressed in pedagogic treatises that an education....will contribute to the pupil's moral fiber and fitness to be an active member of a social elite; this view is matched by the equally clearly expressed position that there is something intrinsically indecorous about a woman who transgresses the social code which requires her to observe a modest silence and passivity in public (Jardine 4).

Again, cross-dressing as a woman is perceived by Portia, and her hand-maiden Nerissa, as a necessary step towards autonomy and power. Portia utilizes her false identity as Balthazar to save Antonio's life, while also disrupting the cozy "friendship" of Antonio and her husband, thus gaining "control over her sexuality while setting the terms for its use in marriage" (Howard 433). Both Portia and Viola use constructed masculinity to manifest control. Cross-dressing is their vehicle of mobility. By queering themselves, by revealing gender to be naught but a flimsy construct, a construct so easily altered by dressing in a "masculine" way, they are allowed an otherwise inaccessible power by obstructing their femininity. Fulfilling queer love, however, is

not as easy a thing to circumvent.

Retreating back into the world of Twelfth Night, we learn that Sebastian, Viola's twin brother, is miraculously alive. Not only is he alive, but Antonio, the sailor who rescued him from the shipwreck thought to have killed him, seems to have developed unrequited romantic feelings for Sebastian: "I could not stay behind you: my desire,/More sharp than filed steel, did spur me forth" (Twelfth Night, 3.3. 4-5). Throughout their interactions, Antonio maintains a patience and a deep show of empathy for Sebastian; even when his personal safety is at risk (which occurs more than once), Antonio puts the beloved "other" before himself. He follows Sebastian to Duke Orsino's court, though he knows there's a high likelihood of facing a court brimming with his enemies; in a moment of confessional love, he reveals: "But come what may, I do adore thee so/ That danger shall seem sport, and I will go" (2.1. 46-47). On top of the patience and empathy he shows, Antonio also seems fiercely protective of Sebastian. In heteronormative terms, Sebastian takes on the role of a man wooing a desirable, albeit disinterested and perhaps oblivious, woman. When Viola/Cesario is mistaken by Antonio for Sebastian whilst she's about to fight in a duel, he interjects, saying: "Put up your sword. If this young gentleman/Have done offense, I take the fault on me:/If you offend him, I for him defy you" (3.4. 326-328). Sebastian's youth, his bravery, and his ambitious nature are all desirable traits Antonio deems necessary to protect. Because the attraction does not seem to be reciprocal, Antonio's affections are not meant to paint a strictly homoerotic picture; rather, it's meant to comment on Sebastian's Renaissance-esque beauty whilst inquiring about what exactly makes him so alluring. Though Sebastian's responses to Antonio's affections are mostly akin to responses a grateful, hetero bro-friend might utter, there are moments of Sebastian alluding to inhabiting a feminine role, blurring Twelfth Night's lines of gender even further:

ANTONIO: If you will not murder me for my love, let me be your servant.

SEBASTIAN: If you will not undo what you have done—that is, kill him whom you have recovered—desire it not...My bosom is full of kindness, and I am yet so near the manners of my mother that, upon the least occasion more, mine eyes will tell tales of me (2.2. 34-41).

It is the phrase “so near the manners of my mother” that is incredibly interesting, in continuing with the theme of gender-bending . He’s admitted to caring about Antonio, though it seems his feelings are platonic, and he’s also admitted to being on the brink of tears, not unlike something his mother would do. This hint at his own internal feminine identity is not only ironic, it also helps paint the portrait of Sebastian’s character. He’s young, strong-willed, and brave; it’s now clear he has an emotional, endearing side as well.

In *The Merchant of Venice*, queer relationships are straightforwardly referred to from the very start of the play. Arthur L. Little, author of the essay “The Rites of Queer Marriage in *The Merchant of Venice*”, calls Antonio’s opening speech a “challenge to heteronormativity” (Little 217):

ANTONIO: In sooth, I know not why I am so sad.
It wearies me, you say it wearies you;
But how I caught it, found it, or came by it,
What stuff ’tis made of, whereof it is born,
I am to learn;
And such a want-wit sadness make of me
That I have much ado to know myself (*The Merchant of Venice*, 1.1 1-7).

Because of the suffocating heteronormative restraints in place in Venice and Belmont, Antonio’s queer desire manifests largely in his suffering. “Antonio mourns. To be sure, he mourns the impending loss of Bassanio, but he mourns, too, a loss of affirmative language and knowledge of his social and institutional place” (Little 217). If heterosexual marriage is Venice’s norm, even

so much so as to displace any need for homosocial relationships, the loss of Bassanio is inevitable.

In this play, cisgender heterosexual institution is less about love, and more about socioeconomic control.

Portia's plight exemplifies this tightly-drawn patriarchal control: "O me, the word 'choose'! I may neither choose who I would nor refuse who I dislike, so is the will of a living daughter curbed by the will of a dead father" (1.2. 19-22). Portia's dilemma is opposite to Antonio's in that hers is so not about mourning a loss (though it may seem that way at first glance). Her father, though physically deceased, is legally alive and well, controlling the fate of his daughter's "love" life- a love life inextricably tied to Portia's father, his desires, and his money (Little 218). Heteronormative structures ensure a steady seat of power; queer desires disrupt this hetero institution set in place by generations and generations of heterosexual (or at least, heterosexual acting) fathers. Any opposition to queer love shows some internalized fear of losing grip on the status quo and the power that derives from that.

Not only is heterosexual marriage an insurance of patriarchal power, it is, in a roundabout, psychological way, an insurance of eternal life. This is clear in Portia's case; her father is very much alive in his ability to exert control over his daughter, his fortune, and his legacy. Portia acts as a vessel of prolonging her father's physical life, and simultaneously loses and gains autonomy through this act. It is not true autonomy if it is dependent on another, of course. If heterosexual marriage is ultimately about maintaining the status quo, peopling society, and dealing with dowries, then queer marriage would be perceived as an undoing of this power structure. Of course, this is just a heteronormative, surface examination of queer marriage. If marriage is the union of two in love, the mutual care and respect which comes from love should

then act as glue securing the marriage's place within society. An individual's happiness and health resulting from a love-filled marriage, queer or hetero, ought to outweigh any arguments pertaining to the conservation of money or power. Emotionally and ethically, the social acceptance of all types of love, I would argue, only betters society as a whole. Unfortunately, humans have a history of being materialistic, power-hungry creatures.

It is widely believed that Shakespeare himself was, at least, not heterosexual. On top of including plenty of queer relationships in his plays, his sonnets are also riddled with the queerest of love. For example, Sonnet 108 is lovingly addressed to a "sweet boy":

What's in the brain that ink may character
Which hath not figured to thee my true spirit?
What's new to speak, what now to register,
That may express my love or my dear merit?
Nothing, sweet boy; but yet like prayers divine
I must each day say o'er the very same,
Counting no old thing old, thou mine, I thine,
Even as when first I hallowed thy fair name.
So that eternal love in love's fresh case
Weighs not the dust and injury of age,
Nor gives to necessary wrinkles place,
But makes antiquity for aye his page,
Finding the first conceit of love there bred
Where time and outward form would show it dead.

This sonnet describes a boundless, all-consuming sort of love. Love, according to Shakespeare, is powerful enough to transcend the constructed boundaries of gender and heterosexuality. To ignore that fact, whether or not one's own personal attractions surpass those boundaries, is to be utterly in denial and ultimately less whole. According to Aranye Fradenburg, "this heteronormative command to love notwithstanding, the Sonnets make us feel the queerness of the loves, lives, and letters generated by generation" (Fradenburg 326). Something as natural, as well-intentioned as love must not be tainted by use as a political tool; it must not be wielded as a

means to greedily maintain power- yet, sadly, it often is. Identity is constructed, it is a manifestation of self-expression; just as personal identity is desired, love is engendered within the individual. The construction of a sonnet is akin to this formation of identity and birth of love: “Everything about the form of the sonnet sequence evokes the intensity of actively quiet attention, its attention to detail, to responsiveness” (Fradenburg 326). It is a living, breathing medium; it is as intricate a thing as identity or love, and is therefore the perfect medium for capturing the truth of both.

If queer love and issues concerning queer identity were confronted four hundred years ago by the most influential Western playwright, hetero-disruptive concepts should not remain surprising or taboo. In fact, and again, this is a utopian thought, it is a wonder heteronormativity has not fizzled out completely. Perhaps the lasting effects of the plays would be stronger if, in Twelfth Night, Antonio and Sebastian married one another at the end. Or, if in The Merchant of Venice, the play began not with Antonio mourning, but with Bassanio greeting him with a kiss. “What if” scenarios are somewhat useless, admittedly; however, they can be used as a template for modern artistic actions. Representation in art matters immensely. With modern musicals like Fun Home and films like Milk, where queer stories are proudly told, it might seem like the battle for equal representation has been won. However, these isolated instances do not speak on behalf of the minds and hearts of every human being on earth. Though incredible strides have been made, there is much work to be done in terms of finally and fully normalizing queer relationships, transgender identities, and any sexualities/genders that do not align with cis/heteronormative standards. In theatre, where the ultimate goal is creating truth, voices must be given equitable platforms if purity of art is to be maintained.

Through Viola’s and Portia’s ingenuity, through the heartfelt pining of the Antonios, and

through many a queer confession of love in the sonnets, an Elizabethan roadmap to queerness is essentially handed to us. There's much to uncover, and much reading-between-the-lines to be done, but this is nonetheless substantive evidence of queerness as an inherent, though suppressed, component of human nature. The dual nature of theatre and queerness is incredibly interlinked, as well: if all the world is a stage, and all the people merely players, then theatre might provide a more comfortable, safe home for those forced to "play" a cis/hetero part in a world unaccepting of deviation. Perhaps queer people, so used to having to play a part different from what they feel to be their truth, gravitate towards a stage-within-a-stage more naturally than most.

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Philosophical Hedonism in Socrates and Friedrich Nietzsche: An Analysis

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Panel: Philosophy and Religion

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Philosophical Hedonism in Socrates and Friedrich Nietzsche: An Analysis

Philosophical hedonism is the doctrine that holds pleasure as a foundational standard of value in human life. From pre-Socratic philosophers such as Epicurus to quantitative hedonists such as Jeremy Bentham and John Stuart Mill, various philosophical frameworks have been put forth that emphasize the role of pleasure in terms of providing a motive and a guide for action. The following paper examines the hedonistic elements in the theories of Socrates with a comparison to that of Friedrich Nietzsche's.

There is a substantial controversy about the theme of hedonism in Socrates's teachings. Many believe that there are inconsistencies and contradictions particularly taking into account Socrates's emphasis on virtuous living. However, hedonism and virtue in Socrates are not necessarily mutually exclusive and work together in unique harmony.

Plato's *Apology* provides an account of Socrates's defense at the trial in which he is accused of impiety towards the gods of the city, introducing new *daimonia*, and corrupting the youth. However, there is a disproportion between the title and the content. Socrates is by no means "apologetic" in his defense and is rather so confident as to say that his defense speech is actually on the behalf of the jurors so that they "do not do something wrong concerning the gift of god to [them] by voting to condemn [him]"¹. Socrates is completely conscious of his arrogant confidence to the point that after he has been voted guilty, he is neither surprised nor vexed. He says that there are

several reasons for his “non-Achillean attitude although the only one explicitly named is that the vote was not unexpected.”² Some suggest that *ouk anelpiston* “should be translated according to its more basic signification,” which means “not un hoped for.”³ If this translation is correct, then Socrates wanted to be convicted, and the fact that he “antagonized the jury by exalting himself before the court” is indicative of the truth of that interpretation.⁴ In fact, Socrates only expresses surprise at the close number of votes on each side and says that he expected a wider margin against him.

Socrates has been voted guilty, and Meletus has proposed the death penalty. Now, Socrates must offer a counterproposal to the judges, whereupon they decide what retribution he deserves. What Socrates offers, however, is the complete opposite of a penalty. He suggests that he be given his meals at the Prytaneum, which was “granted to victors at the Olympian games, distinguished generals, and the descendants of certain families that had performed noble public services.”⁵ This suggestion is another example of Socrates’s shocking self-exaltation. He believes that he deserves this honor more than any victor because, Socrates says, “he makes you seem to be happy, while I make you to be happy; and he is not in need of sustenance while I am in need of it.”⁶ Here, for the first time in the *Apology*, “the final end and justification of Socrates’s way of life comes to sight: happiness.”⁷ Olympian victors bring to the city the appearance of

¹ Plato. “The Apology of Socrates” in *Four Texts on Socrates: Plato’s Euthyphro, Apology, and Crito, and Aristophanes’ Clouds*. Translated by Thomas and Grace West. Ithaca: Cornell University Press, 1984.

² 30e

² Thomas G. West, *Plato’s Apology of Socrates*. Ithaca: Cornell University Press, 1979. 208

³ Ibid.

⁴ Ibid.

⁵ Ibid. 211

⁶ Plato, “*Apology*,” 36e

⁷ Ibid. 212

being happy and reputed, but “seeming is not being” and “only the practice of that activity which is ‘the greatest good for man’ (38a2) truly leads to happiness.”⁸

He then examines a few other unsatisfactory alternatives as punishment. The jury reconvenes; Socrates is condemned to death. For Socrates, death is either of two things. It is either like the most dreamless sleep in which “the dead man has no perception of anything” or it is a “migration of the soul from the place here to another place.”⁹ In the case of the former, Socrates says, death would be “a wondrous gain” for “if someone had to select that night in which he slept so soundly that he did not even dream ...and has to say on consideration how many days and nights in his own life has lived” even the “Great King” would agree that such pleasurable nights are rare instances in one’s life. On the other hand, if the latter is true, Socrates believes this to be “inconceivable happiness” because having been “released from those here who claim to be judges in truth,” he will “find those who are judges in truth” and will be able to associate with Orpheus, Hesiod and Homer.¹⁰ Socrates believes that those who are in Hades are “happier” than those who are alive and playfully portrays himself going from one dead hero to the next and tormenting them with philosophical questions. Socrates, clearly not malcontent with the outcome of the trial, “may imply that he brought about his own condemnation,”¹¹ when he says that “it was better for me to be dead and to have left troubles behind.”¹² Xenophon believes that Socrates’s old age was his primary motivation in his decision to die because by so doing he would be escaping “the most

⁸ Ibid

⁹ Plato, “*Apology*,” 40c

¹⁰ Ibid. 41a

¹¹ West, *Plato’s Apology of Socrates*, 230

¹² Plato, “*Apology*,” 41d

burdensome part of life.”¹³ For Socrates, the most pleasurable aspect of ephemeral life is conversation, and death possibly allows him to engage in such pleasure. Thus, if Socrates really has intentionally vexed the jury into condemning him to death, he has succeeded in escaping the decline of his faculties and the troubles of old age and can potentially look forward to engaging in what he finds most pleasurable for eternity.

Having dedicated his life to examining essential questions about human excellence, virtue, and happiness, his death at this point is not tragic but is merely a “fitting end to a career that has reached its natural conclusion.”¹⁴

The role of pleasure as a foundational motive in human life becomes even clearer in Xenophon’s *Memorabilia*. The *Memorabilia*, which can be approached as Xenophon’s defense of Socrates against all the charges brought to him by the City of Athens, is an account of Socrates’s activities and conversations with various characters in an attempt to introduce them to the advantages of virtuous life. One of the foundational principles of virtue emphasized by Socrates throughout the entire book is the concept of continence and self-discipline. In the beginning chapter of the first book, Xenophon rejects the charges regarding Socrates’s impiety by explaining that he always devoted his time and energy to “conversing about human things.”¹⁵ He then provides a list of 24 “human things” of which the central pair refers to “moderation” and “madness.”¹⁶ Confirming to the overarching structure of the list, moderation and

¹³ West, *Plato’s Apology of Socrates*, 230; cf. Xenophon, *Memorabilia* 4.8.1, 4.8.8

¹⁴ Ibid. 231

¹⁵ Xenophon, *Memorabilia*. Translated by Amy L. Bonnette, Ithaca: Cornell University Press, 1994. 1.1.16

¹⁶ Ibid

madness are opposites of one another, and from the very beginning it becomes clear that a life led without moderation is unable to withstand the Socratic test of virtue.

In a later discussion with Aristippus about the required characteristics for one who is competing to rule, Socrates deviates from his “manifest theme” to portray “how lack of self-control can lead to ‘unhappiness’ in one’s private erotic life.¹⁷ Socrates asks Aristippus if the lack of self-control of an adulterer who enters a woman’s house and runs the risk of getting caught and having to pay the shameful legal penalty is “the mark of someone who is altogether unhappy.”¹⁸ Aristippus does not hesitate to agree and later says that for a human being “to furnish himself with what he needs... is a lot of work.”¹⁹ The dialogue between Socrates and Aristippus alludes to a “life that is private and erotically hedonistic, while being shrewdly self-disciplined.”²⁰ However, Aristippus makes another preliminary point when he says that it is senseless to think that the task of not caring for oneself is insufficient and that one should take on the additional task of caring for the needs of others. This is similar to Xenophon’s earlier criticism of Alcibiades for having “neglected himself” and having lost himself in political life,²¹ and although there “is a grain of the Socratic-Xenophonic in Aristippus’s outlook,” there is an obvious break between what Socrates and Aristippus consider true happiness.²² Aristippus identifies true happiness with what is most easy and pleasant. Socrates, on the other hand, identifies true happiness with “discovering one’s deepest needs” and

¹⁷ Thomas L. Pangle, “Socrates’s Argument for the Superiority of the Life Dedicated to Politics.” *Interpretation: A Journal of Political Philosophy*, vol. 42, no. 3, 2016, pp. 437-458. 440

¹⁸ Xenophon. *Memorabilia*, 2.1.5

¹⁹ Ibid. 2.1.8

²⁰ Pangle “Socrates’s Argument.” *Interpretation*, 440

²¹ Xenophon. *Memorabilia*. 1.2.24-25

²² Pangle, Thomas “Socrates’s Argument.” *Interpretation*, 441

admonishes about “the obstacles to such discovery posed by indulgence in the most obvious desires and pleasures.”²³

According to Socratic virtue, there is an interdependency between hedonism and continence. Socrates suggests that only through asceticism and abstention from indulgence in bodily pleasures can we find what is most pleasurable in life. When Antiphon says that he “thought that those who philosophize should become happier,” but it seems as if Socrates has “reaped from philosophy just the opposite” because he eats and drinks the poorest food and wears the same cloak during summer and winter and is continuously without shoes, Socrates asks, “Do you think that anything is more responsible for my not being enslaved to stomach or sleep or lust than that I have other things more pleasant than these?”²⁴ Also, in a further conversation with Euthydemus, he says that “incontinence prevents one from experiencing any pleasure worth mentioning from the things that are most necessary and pleasant,” and that it is only through waiting and enduring until hunger or thirst or sexual desire or sleeplessness “become as pleasant as possible” can one “pleasurably rest and sleep.”²⁵

One possible objection to this interpretation is that Socrates only uses pleasure as motive for virtuous action to appeal to individuals who are not morally-disciplined enough to see continence or virtue as ends in themselves. Although plausible, this objection is false because “Socrates characteristically continues to refrain from defending self-control or virtue as an end in itself.”²⁶ For instance, in the aforementioned

²³ Ibid.

²⁴ Xenophon. *Memorabilia*, 1.6.8

²⁵ Ibid., 4.5.9

²⁶ Pangle, “Socrates’s Argument,” *Interpretation* 445

discussion about required qualities for he who wishes to rule, Aristippus asks Socrates how the “kingly art” of continent men differs from “those who suffer bad things out of compulsion” except that “the one who gladly endures what is painful lacks sense as well.”²⁷ Socrates counters by asking Aristippus if he doesn’t believe that those who voluntarily endure thirst or hunger can drink or eat whenever they wish and declares that those who bear such hardships willingly delight themselves in the hope “for *future, consequent*, prize acquisitions.”²⁸ Socrates does not defend the continent man against the incontinent because he believes that the former engages in something inherently valuable but rather because what he *gains* or *experiences* from that activity is more pleasant, making true “pleasure” or “happiness” the ultimate justification of that activity.

Besides the interdependent relationship between continence and pleasure, Socrates’s hedonism is also visible in his discussion of relationships and interactions. Socrates recounts the parable from Prodicus depicting Heracles as having reached a young age and having become his own ruler, “sat down perplexed” as to whether he would take the road through virtue or through vice.²⁹ Virtue and vice, portrayed as women, approach Heracles to each convince him to take the road toward her. Vice expresses a life of sensual and particularly sexual pleasures obtained “with the least trouble,” while Virtue “truthfully describes the disposition the gods have made of the things that are.”³⁰ She then proceeds to explain that if Heracles wants the gods to be gracious to him, he must “serve the gods.”³¹ Then, Virtue goes on to explain that this

²⁷ Xenophon. *Memorabilia*. 2.1.17

²⁸ Pangle, “Socrates’s Argument,” *Interpretation*, 445

²⁹ Xenophon. *Memorabilia*. 2.1.21

³⁰ *Ibid.*, 2.1.27

³¹ *Ibid.*

sort of quid pro quo is not unique to the relationship between gods and men but actually “pervades human existence.”³² For instance, she says, “if you want to be cherished by your friends you must do good deeds for your friends” or “if you desire to be honored by some city, you must benefit the city.”³³ Here what is pleasant is equivalent to the advantage that is gained. Virtue encourages Heracles to engage in virtuous action and serve the gods not because serving the gods is a commendable end in itself but because doing so leads to the attainment of pleasant gains. In another conversation with Diodorus, Socrates asks him if he would attend to his servant provided that he became ill. Diodorus responds that he would. Socrates again asks if one of his acquaintances “who is far more useful” than a household servant was “at risk of perishing because of need,” Diodorus would consider it worth his while to attend to him provided that “Hermogenes is not lacking in judgment … and would be ashamed not to benefit you in return.”³⁴

In addition to dialogues in *The Apology* and *The Memorabilia*, the *Protagoras* also includes conversations essential to the discussion of Socratic hedonism. In the beginning of the dialogue, Socrates and Protagoras agree that some live well and some ill, and to live life pleasantly to the end and free of pain is to have lived well.³⁵ However, Protagoras is hesitant as to whether to “to live pleasantly is good” and “to live unpleasantly evil,”³⁶ so he and Socrates begin to “investigate” if the pleasurable and the good are really the same. Socrates then asks Protagoras if he believes that knowledge

³² Pangle. “Socrates’s Argument.” *Interpretation*, 452.

³³ Xenophon. *Memorabilia*. 2.1.28.

³⁴ Ibid. 2.10.2-4.

³⁵ Plato. *Protagoras*. Translated by C. C. W. Taylor, Oxford University Press, 1996. 351b.

is “noble and able to rule a human being” or if he sides with the Many in believing that knowledge can be overcome by “sometimes anger, sometimes pleasure, sometimes pain, other times eros, and often fear.”³⁷ Protagoras responds by saying that “it would be *shameful* if I, of all people, were to say that wisdom and knowledge were not the mightiest of all human things.”³⁸ From then on, Socrates speaks “as one of an allied pair over against the Many,”³⁹ and the “teachable Many learn from themselves...via questions put by Protagoras and Socrates...[that] they are hidden hedonists.”⁴⁰ This should come as no surprise to us. There are parallels between the conclusion of the dialogue between Socrates and the Many in the *Protagoras* and that of him and Theodote in the *Memorabilia*. Theodote was reputed to be one of the most beautiful women of Socrates’ time and was “the sort to keep company with whoever persuaded her.”⁴¹ Socrates tries to teach Theodote how to “hunt” anyone she seeks companionship with. He tells her, “it makes a big difference to approach a human being according to nature.”⁴² For instance, one would never find friends through violence, but this “prey is both captured and kept constant by means of benefaction and pleasure.”⁴³ Socrates holds that the “nature” of human beings is hedonic; “that pleasure and benefaction” are the strongest appeal for association and action. Thus, although the Many are not aware of their subconscious hedonism, both the reader and Socrates are.

³⁶ [Ibid., 351c](#)

³⁷ [Ibid., 352b](#)

³⁸ [Ibid., 352d](#)

³⁹ Laurence Lampert, [How Philosophy Became Socratic: a Study of Plato’s Protagoras, Charmides, and Republic](#). Chicago: The University of Chicago Press, 2010. 109

⁴⁰ [Ibid. 112](#)

⁴¹ Xenophon, [Memorabilia](#). 3.11.11

⁴² [Ibid.](#)

⁴³ [Ibid.](#)

As his conversation with Protagoras continues, the hypothetical Many also learn that “by *good* they really mean productive of long-term pleasure and by *bad* productive of long-term pain.”⁴⁴ This reminds us of Socrates’ response to Antiphon that philosophic pleasures are more pleasant than bodily pleasures “in their use but also by providing hopes that they will benefit always.”⁴⁵ What Socrates considers real pleasures or “true happiness” are not pleasures that are close at hand but those than can and ought to be attained through virtue. He demonstrates to the many that “their hedonism, hitherto suppressed because they judged it to be immoral, can lead them to live pleasantly...doing the good they know to be good.”⁴⁶ To achieve that goal, the Many have to be taught to believe in the power of knowledge to overcome the deceptive appearance *of* immediate pleasures. Socratic virtue recognizes that “if *good* of pleasure is attainable through knowledge, the new hedonism...can subject the power of pleasure to a greater power: enlightened pleasure, belief in long-term life of ease and freedom from pain.”⁴⁷ These “enlightened pleasures” are more real both in their permanence and their power; they are what, Socrates believes, we seek in bodily and immediate pleasures but actually find in virtuous living. They are what justify the ultimate end of Socratic life.

Nietzsche dissented with Socrates on many grounds and not only criticized but abashed him on various accounts. Besides mocking Socrates for having descended from a low segment of society or his apparent ugliness, Nietzsche criticizes him for being “a symptom of decay” because Nietzsche believes that “*the whole morality of*

⁴⁴ Laurence Lampert. *How Philosophy Became Socratic*, 112

⁴⁵ Xenophon. *Memorabilia*. 1.6.8

improvement" is a misunderstanding in that the philosopher or the moralist uses it as a way to extricate himself from decadence but instead only ends up with an escape that is itself "another expression of decadence."⁴⁸ "The Problem of Socrates" begins with Nietzsche's realization that the wisest men of each era believe that life is no good. He thinks that such judgments are "stupidities" because no value judgments on life can ultimately ever be true. Nietzsche's paradox is that "the value of life cannot be estimated" neither by the living nor by the dead, each for their own idiosyncratic reasons. Thus, for any philosopher to see a problem with the value of life, "it is a question mark on his wisdom, an un-wisdom."⁴⁹ Nietzsche also criticizes the method of dialectics that Socrates chose for his teachings. He believes that "dialectics is a type of self-defence used only by people who do not have any other weapons."⁵⁰

Despite such differences and criticisms, however, there are parallels that can be drawn between the ideas put forth by Nietzsche and that of Socrates. In the third essay of the *On the Genealogy of Morals*, Nietzsche explores the meaning of ascetic ideals and observes that "if we look closely at the lives of all the great productive intellects," we will find an adherence to ascetic ideals such as poverty, humility, and chastity. Immediately afterwards, he says that such asceticism should "not for a minute...be considered as 'virtues'...but as the most essential and natural conditions in which they

⁴⁶ Lampert, *How Philosophy Became Socratic*, 112-113

⁴⁷ Ibid., 113-114

⁴⁸ Friedrich Nietzsche, "Twilight of the Idols," The Problem of Socrates, §11, in *The Portable Nietzsche*, translated and edited by Walter Kaufmann, *New York, N.Y., U.S.A: Penguin Books, 1982.* 478

⁴⁹ Ibid. 473

⁵⁰ Ibid. 476

flourish.”⁵¹ This is because every animal intuitively strives towards the most “favorable” conditions under which “it can exert its full strength and experience its greatest feeling of power” and by the same logic has an aversion to anything that can cause a destruction, distraction, or obstruction of any sort to this optimal state.⁵² He points out that many philosophers such Heraclitus, Plato, Descartes, Spinoza, Leibniz, Kant, and Schopenhauer had never been married precisely because of this instinctive desire, which ultimately serves to pursue the fulfillment of a higher end: the satisfaction of the philosophical drive and the pleasure of philosophizing.

This reminds us of Socrates’s discussion with Antiphon in the *Memorabilia* about the superiority of the pleasures of philosophical life. There is, however, once clear distinction between the two perspectives. Socrates believed that there are virtues that inevitably accompany the pleasures of philosophical life and that more importantly there is something pleasurable about the search and discovery for an objective truth. Nietzsche, however, believes that no objective exists, and even if there is one, we certainly cannot see it. According to Nietzsche, “there is *only* a seeing from a perspective, *only* a ‘knowing’ from a perspective, and the *more* eyes, different eyes, we train on the same thing, the more complete will be our ‘idea’ of that thing.”⁵³ Nietzsche’s perspectivism and Socrates’s objectivism although pursue the same quality of pleasures, their beliefs about the value of these pleasures and where they originate are quite different. Although Socrates does not believe that the virtue followed by such pleasures are the ultimate end, he does believe that there is some value associated

⁵¹ Nietzsche, Friedrich W., *On the Genealogy of Morals*. Translated by Michael A. Scarpetti, London: Penguin Classics, 2013. III.8

with ascetic ideals and continence because their promotion and augmentation of morality. Nietzsche, on the other hand, repeatedly makes himself clear that he does not believe that there is any value of any sort associated with ascetic ideals and believes them to be a mere tool for the philosopher. He says that “the ascetic ideal for a long time served the philosopher as a form in which to appear, a precondition of existence- he had to *represent* it so as to be able to be a philosopher, he had to *believe* in it in order to represent it.”⁵⁴ This mere representation and façade of belief is the result of emergency conditions that demanded this ascetic cloak for philosophy to even be possible. In other words, “philosophy lent rational support to irrational fictions; it authenticated and endorsed the ascetic misunderstanding of a life to which it was inwardly opposed.”⁵⁵ Nietzsche aims to end such esoteric practices “by bringing them into the open” and for precisely “the same reason that philosophy first took up esoteric practices: to defend the place of reason in the world.”⁵⁶

Nietzsche’s goal to lift this cloak of esotericism is nowhere clearer than in *Thus Spoke Zarathustra*. Zarathustra, who had lived in the mountain for ten years and had enjoyed his solitude, decides to descend to the realm of men because God is dead, and the spread of nihilism will bring the end of mankind unless Zarathustra teaches humans to overcome themselves into the overman, who “shall be the meaning of the earth!”⁵⁷

⁵² Ibid. III.7

⁵³ Ibid. III.13

⁵⁴ Ibid. III.10

⁵⁵ Laurence Lampert, “The History of Philosophy And Esotericism,” in *Journal of Nietzsche Studies*, vol. 9, no. 10, 1995, pp. 36-49. 40

⁵⁶ Ibid 39

⁵⁷ Friedrich Nietzsche, “Thus Spoke Zarathustra,” in *The Portable Nietzsche*, translated and edited by Walter Kaufmann, *New York, N.Y., U.S.A: Penguin Books, 1982.* I, Zarathustra’s Prologue, §3

In his prologue, Zarathustra says that the last men think that they have invented happiness. They “have left the regions where it was hard to live, for one needs warmth.” They also love their neighbor and rub against him because “one needs warmth.”⁵⁸ Nietzsche believes that nihilism and the death of God have lead to this resort to comfort or escape from pain. The last men do not love their neighbor because they believe it is moral to do so but because there is either a quid pro quo structure in place that results in the gain of benefit or that there is fear of loneliness and the pain thereof.

Zarathustra descends the mountain and enters the Motley Cow. Upon entering the town, Zarathustra encounters a sage who “was praised...for knowing how to speak well of sleep and of virtue.”⁵⁹ The sage is teaching the youth of the town how to attain a good night’s sleep. He encourages them to perform forty virtues each day in order to sleep well at night. First, “ten times a day you must overcome yourself: that makes you good and tired and is opium for the soul.” Second, “ten times a day you must reconcile yourself again with yourself; for overcoming is bitterness and the unreconciled sleep badly.” Third, “ten truths a day you must find,” and fourth, “ten times a day you must laugh and be cheerful.”⁶⁰ Nietzsche believes that this use of virtue for the attainment of comforts or pleasures such as a good night’s sleep is characteristic of the last men, the decayed men who have little will to power. Upon hearing the words of the sage, Zarathustra thinks to himself that he would only pursue such teaching if life had no meaning and he has to choose “the most sensible nonsense,”⁶¹ and although there is a

⁵⁸ *Ibid.*, §5.

⁵⁹ *Ibid.*, On the Teachers of Virtue

⁶⁰ *Ibid*

⁶¹ *Ibid.*

purpose and meaning to life for Zarathustra, we know that there isn't one for Nietzsche.

The question then becomes, would Nietzsche, being a nihilist who believes that life is utterly devoid of meaning, yield to the validity of such hedonistic teaching?

Zarathustra also criticizes anyone who despises the human body. He believes that the soul is a childish belief and that the "awakened" believe that there is only body and the "soul is only a word for something about the body."⁶² Not only is despising the body not life-affirming, it actually leads humans to despise their own existence and is in turn detrimental to mankind. This can be interpreted as an extension of lifting the ascetic disguise and revealing the truth. The ascetics taught that the body and all that is related to it must be ignored because there is an otherworldly immaterial presence that values holds the development of the mind to be superior to that of the body. However, Zarathustra, having claimed that God is dead, believes that now anything that such asceticism is a sin against the earth, which is now the standard of measurement. He goes to say that virtue is a subjective experience, and the traditional conceptions of morality are wrong in that they teach that certain passions are conducive to evil while others to virtue. Zarathustra believes that any passion can be turned into virtue.⁶³ Bearing in mind, his view of attention to the body as life-affirming and the notion that any passion can be turned into virtue, it would be plausible to think that Zarathustra would not only not object to the embracement of bodily pleasures but would argue that they can be deemed "virtuous."

⁶² *Ibid.*, On the Despisers of the Body

⁶³ *Ibid.*, On Enjoying and Suffering the Passions

Despite the vast differences in the theories of Nietzsche and that of Socrates, there are similar elements that point to hedonistic undertones in both thinkers. That is not to say, that pleasure is the foundational origin of all their beliefs but that there are ends that are valuable primarily because of the pleasure they generate. One could argue that neither of these two philosophers was consciously aware or intentional in the incorporation of such undertones. However, the conscious or subconscious means through which these words were written should be of no value to us. Even if neither Socrates nor Nietzsche was consciously aware of such elements, the mere presence of them points to an existing framework of mind that values pleasure as an end.

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Ashley Wright

Beauty by Design: The Socioeconomic Implications of Facial Features in America

Monroe Community College

Panel: Psychology

Mentor: Professor Scott Rudd

Beauty by Design: The Socioeconomic Implications of Facial Features in America

As long as humans have existed, we have judged one another on things as arbitrary as the color of our skin or the genitals between our legs. Our facial features, another quality we are born with no control over, are judged just as harshly, if not also more vocally. Insults about racial features also run rampant; we have heard them all before. Whether people are comparing an African American to a monkey, commenting on the larger noses and bushy brows typical of those of Middle Eastern descent, or making fun of an Eastern Asian person's characteristically smaller eyes, these insults create an atmosphere of white racial superiority in beauty. The benefits of being attractive are undeniable and numerous. Apart from receiving numerous advantages in day-to-day interactions, attractiveness may also lead to better performance academically and quicker promotions occupationally. On the flip side, those deemed unattractive often face stigma and discriminatory comments, especially, as noted earlier, when those "unattractive" features are associated with particular ethnicities. If characteristically "white" features are indeed linked with cultural attractiveness and higher socioeconomic status in America, then those possessing these features would have numerous advantages because of their perceived attractiveness, sometimes even in spite of their skin tone. The cost and accessibility of plastic surgery further widens the socioeconomic divide between attractive and unattractive individuals, allowing those with enough cash to change their features to escape the burden of their naturally unattractive features and share in the bounty of the beautiful. However, the rise in popularity of plastic surgery and the increasing emphasis and benefits of attractiveness

set a precedent for genetic modification of offspring. As more research becomes available for parents showing the benefits associated with being attractive, if the technology becomes available to customize your offspring's features and offer them a better chance in life, many parents will jump at the chance to give their child a head start. The problem with a head start is that there will still be children who will be left behind at the starting line. There is little doubt that these procedures will be costly, especially when new on the market, and the lack of equality in accessibility will inevitably create a class divide between rich and poor, beautiful by design and beautiful by chance.

So what biases do we hold for attractive people, and what prejudices are inflicted upon unattractive individuals? Talamas et al suggest that there is an, "attractiveness halo effect," in which desired personality traits are ascribed to attractive people over unattractive people" (2). The research goes on to note that attractive people are more likely to be seen as intelligent, perceived to have higher academic scores, and be more conscientious (8). A natural question would be, "Well, what if there is a correlation between attractiveness and intelligence?" In a study that addressed this point, researchers found, "no relationship between attractiveness and actual academic performance" (8). These results are disturbing through the lens of academia and the workplace. If teachers and bosses are influenced by the attractiveness halo, they will be more likely to favor attractive employees or students even though there is no empirical evidence that attractive individuals are more intelligent or conscientious. This fact leads to the fiscal advantages of investing in plastic surgery. If an individual invests in a surgery that allows them to receive the job they want, and to be promoted more quickly,

then their investment is sure to pay off eventually. Intelligence was rated more accurately in attractive men than in attractive women, implying that the attractiveness halo effect is stronger for women (Kleisner et al qtd. in Talamas et al 2). This research shows a stronger emphasis on looks for women than men, as participants overestimated female intelligence based on attractiveness at a higher rate than for men. Another interesting observation was seen by Gordon et al, who found that, “Young men talking on the phone with a young woman after being shown a photo depicting her as attractive were rated by independent observers to be warmer and more sociable than when the caller had been depicted as unattractive” (Gordon et al 5). This data suggests that the value of looks for women is even higher than for men, placing a stronger pressure on women to maintain their looks and perhaps take further action to enhance them using makeup or even plastic surgery.

The attractiveness bias influencing workplace hires is so widespread that several states have changed their local laws to shield workers from prejudices based on their physical features (3). However, research seems to indicate that there is a correlation between unattractiveness and unintelligence (Talamas et al. 2). These findings are, “consistent with the “bad genes” hypothesis, which implies that faces perceived as very unusual or unattractive may be an indicator of poor genetic fitness” (2). Here we find a reason as to why our brains trick us into attributing positive characteristics to attractive people. Because being unattractive may be an indicator of “bad genes” or genetic abnormalities, we may subconsciously favor attractive individuals, labeling them as intelligent or conscientious. Individuals with developmental disabilities often suffer from physical abnormalities as well as decreased intelligence, which also may be a cause for

this bias (2). There could also be an alternative reason for the correlation between unattractiveness and unintelligence. Gordon et al explored the effect of relative attractiveness on students by following 15,000 students from middle to high school in the 90s and early 2000s (2). Their results showed that, “physical appearance stratifies youth on academic achievement, a marker of progress, performance, and status in the educational system” (1). A similar bias exists in schools as well as the workplace: attractive students are seen to be more intelligent, teachers have higher expectations for them, and they achieve better grades (6). Given the stigma that falls upon unattractive individuals and the preferential treatment attractive students are given, it is possible that some unattractive students might slip through the cracks and receive a lower quality education, affecting their intelligence later in life, causing the correlation between unattractiveness and unintelligence. Researchers have considered this conclusion, noting that, “social problems in high school that interfere with academic progress (including the potential stratifying role of attractiveness) and disrupt college matriculation can have cascading ramifications well beyond the high school years” (6). The idea of “cascading ramifications” suggests that unattractive students receiving fewer resources and less attention may have long term effects, and this could even be an explanation for the preferential treatment and quick promotion potential of attractive individuals in the workforce, who have been given more resources for success.

Research from Gordon et al further comments on the disparity of treatment between attractive and unattractive individuals, noting, “Those who were rated as less attractive earned 9% less in hourly earnings than those with average looks; those who were rated as handsome, on the other hand, earned 5% more than those considered to be average

looking. For women, the penalty for being unattractive was 5%, and the advantage of being attractive was 4%" (3). This data shows a true socioeconomic impact for individuals based on nothing but their relative attractiveness. Not only will an attractive person be seen to have positive qualities they do not necessarily possess, but they will also receive higher pay, while their counterparts will be penalized heavily in the workplace, if they even get the job at all.

It is important to address that other factors influence the way people perceive an individual apart from attractiveness. The idea of intersectionality, which is defined as, "a concept that identifies how different categories of inequality (race, class, gender, etc) that intersect to shape the lives of individuals and groups," definitely comes into play when evaluating our everyday interactions (Ferris and Stein 184). Race, class, and gender all tie together with attractiveness to create a path towards academic and occupational success. Research has shown that, when presented with racially ambiguous faces, or faces with a skin tone that is neither obviously white nor black with no racially characteristic facial features, people attribute a certain race to the face based on contextual clues (Freeman et al 2). In a study to look into how racial stereotypes affect class perception, Freeman et al presented participants with racially ambiguous faces dressed in either janitorial attire or suits, and asked participants to assign a race to these faces (2). The results could not have been clearer: high-class attire, a suit, elicited an assignment of white, and those with low-class attire were categorized as black (2). This research shows a bias, that those with white skin are perceived as more likely to have high-status jobs than those with dark skin, and vice versa.

Even more interesting than these results were those received through a similar experiment by the same research team. In this study, participants were asked to assign race to non-racially ambiguous faces as well as racially ambiguous faces (4). This particular experiment was done via computer, and mouse-tracking software was used to keep track of where the participant's mouse went while assigning a race to the face in the photo (4). The results showed that, "En route to settling into the White response for a face with low-status attire, the hand showed an attraction to select the Black response; and en route to settling into the Black response for a face with high-status attire, the hand showed an attraction to select the White response. Further, this attraction effect grew stronger as racial ambiguity increased" (4). In short, despite all cues pointing to a face being non-white and high-status, the participants were still compelled instinctively to categorize the face as white, with the same true in reverse. Research has also shown that the race assigned to a racially ambiguous face is influenced by prior knowledge of the person behind the skin tone, such as if they have served a prison sentence, if they are impoverished, or if they were murdered (2). In a similar study, it was found that people reacted more negatively to African American individuals with prototypical racial features than those with less prototypical racial features (Hagiwara et al). It was even found that those with more pronounced prototypical African American features received harsher prison sentences in comparison to those without (Hagiwara et al). This research concluded that, "Blacks with stronger Afrocentric features are perceived, evaluated, and treated more negatively than Blacks with weaker Afrocentric features" (Hagiwara et al). Thus, skin tone and class can intersect with facial features and relative attractiveness affecting how an individual is

treated, perhaps causing them to receive the benefits of attractiveness due to certain facial features despite the biases associated with skin tone.

Many of the facial features deemed as attractive for females have a common thread: youth. Thornhill and Grammer even state, “the power of female youth in men’s attractiveness judgments is apparently universal” (106). It seems obvious that signs of youth would trigger the male brain to be attracted; it was not so long ago that the average life expectancy was half what it is today. If the average adult was going to die in their thirties, it makes sense that features that indicate youthfulness would contribute to female attractiveness. One hundred years ago, humans did not come even close to the level of medical advancements we have today, and the more children a couple produced, the more likely it was that one or more of them would survive to pass on those genes to the next generation. Youth as a measure of fertility does not fit as well in today’s society, where couples usually start their families later, waiting for more resources rather than worrying solely about children’s survival. But these features are still idolized in today’s society. Jones proved that, “relatively neotenuous female faces, i.e., faces that appear to be younger than the actual age of the face based on facial proportions – small lower jaws and nose, and large lips – are more attractively rated by male raters from five populations” (qtd. in Thornhill and Grammer 107). However, Thornhill and Grammer note that, “neoteny does not make men’s faces more attractive” (107). While markers of youth point to fertility in females, men can reproduce later in life, leading those youthful features to be of less importance. When considering facial attractiveness, “Flawless skin is the most universally desired human feature and human males are expected to be most sexually attracted to female skin free of blemishes” (Fink

and Neave 319). Clear skin is also an indication of youth; children have soft and smooth skin, with skin problems usually surfacing later in life. Research from Baudoin et al states that “A women was seen as more attractive when her face was symmetrical and close to the average, and when its features had certain characteristics like big eyes, a small nose, prominent and high cheekbones, a small chin, and [full lips]” (328). All of these qualities are indicative of health, attractiveness, and a good genome, and, as we discussed earlier, better treatment academically and occupationally.

While a smaller nose, jaw, full lips, wide eyes, and clear skin are all measures of youth and beauty in females, they are also indicative of something else. Traditionally “white” features match up with these particular features that are associated with youth and beauty. Hagiwara et al note that prototypical African American features include a wider nose and very full, protruding lips (Hagiwara et al). Larger noses are prototypical for those of Jewish and Arab descent, broader, flatter noses are typical of Latino, Asian, and African American individuals, and flat noses and smaller, monolid eyes are typical for those of Asian descent (O’Connor). Wider jaws are also prototypical for those of African American, Latino, and Asian descent (O’Connor). As far as clear skin is concerned, in my experience as a licensed esthetician, white skin is more likely to be dry, predisposed to wrinkles with aging, but not as likely to develop pimples and acne. The skin type associated with Latino, African American, and Asian skin tends to produce more oil, leaving individuals of this ethnicity more likely to develop acne, but also able to age less quickly. These traits leave ethnic individuals at a disadvantage as far as their socioeconomic status is concerned. Not only is white skin associated with higher status, thus putting white individuals at an advantage for job opportunities, but

their features also match fairly well with genetically predetermined beauty standards, allowing them to benefit from the attractiveness bias as well as a racial bias. On the other hand, many of the facial features associated with individuals of non-white ethnicities stray from genetically ingrained beauty standards, putting them at risk for both racial prejudice in the workplace or academic settings, as well as for the stigma associated with being unattractive.

Plastic surgery has made a killing in keeping people youthful. Procedures such as botox, facelifts, eyelifts, and brow lifts are all surgical methods of keeping the face youthful. Facelifts made up 33% of all cosmetic surgery procedures in those aged 40-54 years old, and 66% of all cosmetic surgery procedures in those aged 55 and over (“2015 Plastic Surgery Statistics”). With the cost of a facelift averaging around \$6,550, it is clear that staying youthful costs money (“2015 Plastic Surgery Statistics”). However, as previously discussed, those at most risk for early aging, which puts someone at risk for being affected by the unattractive stigma, are white individuals based on their skin type. In fact, out of all of the individuals who received Botox in 2015, an anti-aging plastic surgery procedure, 76% of them were Caucasian (“2015 Plastic Surgery Statistics”). Clear skin is also of paramount importance for an individual’s relative attractiveness. Treatments such as chemical peels focus on minimizing acne and removing acne scars, and of those who received this treatment in 2015, 83% were Caucasian (“2015 Plastic Surgery Statistics”). Botox and chemical peels are minimally invasive procedures with prices in the hundreds instead of the thousands, but they are still an additional expense. With the median white household having a net income thirteen times higher than the median black household, it is clear that white individuals

will be far more likely to have the extra income to spare for anti-aging procedures (Kochhar and Fry). Since is one of the most important factors when it comes to determining an individual's relative attractiveness, this income disparity puts white people in an advantageous position for adjusting their looks as they begin to age and cashing in on the attractiveness halo effect.

The trends in anti-aging procedures are intriguing, but anti-aging procedures are definitely more necessary for white people, whose skin ages faster than ethnic individuals. Ethnic plastic surgery trends are distinct and separate, with very troubling implications. The most popular procedure for Hispanic and African American individuals is rhinoplasty, commonly known as a nose job (Sturm-O'Brien 73). The main goals of this surgery for individuals of these ethnicities are nose tip refinement, increased projection, and dorsal augmentation (73). Nose tip refinement involves narrowing the noses' bridge, making the nose appear more slender from the front. Increased projection creates a less flat look for the nose from a profile view, and dorsal augmentation creates a slightly upturned nose tip. All of these modifications make the nose look slender and smaller, which matches up with both the white ideal and the childlike features that are genetically preferential. Through her research into ethnic plastic surgery, O'Brien interviewed several cosmetic surgeons, including Dr. Edmund Kwan (O'Brien). He speaks on "ethnic noses," which is how he refers to noses that are flatter to the face, which are characteristic of Asian, African American, and Hispanic individuals (O'Brien). He describes how rhinoplasty in Caucasians is an entirely different procedure than in ethnic individuals, usually reducing an overlong nose or defining the tip, but with "ethnic noses" there has to be an actual surgical implantation, an addition of

silicone or cartilage grafted from the patient's body, completely morphing the patients' nose instead of simply refining it (O'Brien). These procedures present a true difference between plastic surgery for Caucasian individuals and ethnic individuals: while Caucasian individuals are simply tweaking the features they already have to fit the beauty standards, ethnic individuals are forced to add implants, or have cartilage grafted from other body parts, which is far more costly, and far more dramatic of a change. In order to take advantage of the attractiveness bias, individuals with characteristically ethnic noses have to pay more for procedures as well as have a much more invasive and dramatic surgery to get the same results as Caucasian individuals.

Another facial feature associated with problematic plastic surgery trends are the eyes. As noted earlier, larger eyes are associated with youth and beauty. According to research by Sturm-O'Brien, around 50% of Asian individuals have "diminished or absent superior palpebral fold," which is a way of addressing the lack of a crease in characteristically Asian eyes, a monolid, which makes the eyes appear smaller (73). Blepharoplasty, which is a surgical procedure that creates the crease that Asian eyes lack, is in high demand for the Asian population (73). This ethnic plastic surgery trend is particularly disconcerting, as it completely erases an ethnically characteristic feature. However, these procedures are not only pushed on Asian plastic surgery clients by surgeons, but through occupational pressure as well. O'Connor claims, "some accept the price of blepharoplasty as the cost of doing business in America" (O'Connor). A plastic surgeon, Dr. Lee, told O'Connor a disconcerting story while she was researching ethnic plastic surgery trends. He recounts a patient, a bus driver with monolid eyes, coming into his office, requesting a blepharoplasty because his supervisor had

repeatedly accused him of either being tired or sleeping on the job (O'Connor). The patient told Dr. Lee, "I want to look more awake so I don't lose my job," and the doctor happily obliged, slapping a price tag of around \$2,500 on top of the humiliation the patient already felt about having to get surgery to keep his job (O'Connor). The problem with ethnic plastic surgery trends such as this one is that, despite the surgeon hearing the racist explanations as to why a client may want a certain surgery, they will still capitalize on these trends, further cementing the standard of white as beautiful.

As extreme as ethnic plastic surgery trends for noses and eyes may be, certain intense plastic surgery trends are making their way into American surgeons' offices from overseas. Facial contouring, which involves breaking, shaving, and otherwise manipulating the bones of the face, originated in Asia but has been growing in popularity in the U.S. (O'Connor). This process is mainly used to slim down wider ethnic faces, creating a slimmer jaw and cheek structure, features that are associated with youth. A plastic surgeon, Dr. Kwan, even states that, "Cheekbone reductions are just ethnic. Asians hate this kind of cheek" (O'Connor). Wider jaws and generally wider faces are associated specifically with certain ethnicities, as noted earlier; Caucasian faces are generally slimmer, and as Dr. Kwan noted, facial contouring is not a procedure seen in his white clients. This process of severely altering the face in order to attain this childlike jaw, the more slender face shape associated with white features, is troubling at best, and disturbing at worst. It shows the extreme lengths individuals of certain ethnicities must go through to fit the beauty ideal that white individuals do not, despite the fact that white individuals on average have far more disposable income at hand.

Although these plastic surgery trends are influenced in part by genetic predispositions, we must also address the role that ethnic icons play in the creation of beauty ideals. Famous celebrities such as Beyonce, Jennifer Lopez, Lucy Liu, Kim Kardashian, and Halle Berry are culturally significant women of color who are considered very beautiful. However, their features are not very representative of the ethnicity they belong to. Halle Berry and Beyonce, for example, have a very slender face and nose, as well as dainty, non-protruding, full lips. They do not have a single prototypical African American feature apart from the color of their skin. Jennifer Lopez also does not have any prototypical Latino features, such as a wide jaw and flatter, wider nose. The tip of her nose is defined, and the bridge of her nose narrow, the exact features that other members of her ethnicity are racing to get from plastic surgeons, as discussed earlier. There is a true lack of representation of Asian actresses in the media; a Google search for famous Asian American actresses yielded few results apart from Lucy Liu, who has been the most prominent Asian actress for the past few decades. While her eyes do still have a characteristically Asian look, she does have the crease above her lid that can be achieved through blepharoplasty, and she has a very slender jaw, features that are not prototypical for Asian individuals. Kim Kardashian, who is of Armenian descent, has had plastic surgery to refine and shape her characteristically sharp Middle Eastern nose, and now has a slender, defined nose more prototypical of Caucasian individuals. These ethnic beauty icons are splashed across magazine covers, news stations, seen in movies and at awards shows. But their variance from prototypical ethnic features sends a clear message: beautiful women of these ethnicities should be ethnic in skin color alone. Their facial features are not representative of their

ethnicities, and thus set an unrealistic standard of beauty for women of color in America. It is possible that part of the reason these individuals rose to fame is because there were more opportunities awarded to them for being attractive due to their lack of stereotypical racial features. Whatever the cause, many ethnic women see these beauty icons as the ideal for those within their race, and this further reinforces the white ideal in beauty standards.

The normalization of plastic surgery only adds to the emphasis on beauty and attractiveness in American culture, leading to a society where individuals feel as though they should get surgeries to fit into the norm, to be more attractive, to be treated better, and to have more success occupationally. However, cosmetic surgery is only seen as acceptable if it is reinforcing the social norm. There are certainly negative connotations to the term “plastic surgery junkie,” a person seen to be obsessed with body modification to the point that their features are visibly unnatural. Nonetheless, they are getting similar procedures to other cosmetic surgery clients, lip injections, nose jobs, just tweaking the parameters to make it more extreme. What makes facial contouring, the permanent and painful breaking and shaving of facial bones, any more acceptable than lip injections that make an individual’s lips five times larger than their original size? The only conceivable difference is the conformity to societal norms. When a procedure makes someone more attractive, we don’t care, but if the procedure helps the individual stray from societal expectations of beauty, we shake our heads and write snappy Buzzfeed articles expressing our disapproval. Both are extreme procedures that completely alter the appearance of the face, but one makes the face more relatively attractive, a culturally valued trait, and the other strays from standards of attractiveness,

towards a cultural stigma. Another example of cosmetic surgery only being acceptable if it reinforces the societal norm is that of elective mastectomies. Despite the fact that breasts are superfluous parts of the body that females can surely live without, there is an extreme stigma associated with removing them (Bogdanoski 509). In comparison, breast augmentation, commonly known as a boob job, was the number one most popular cosmetic surgery procedure in 2015 (“2015 Plastic Surgery Statistics”). This may have to do with society’s obsession with femininity; enhancing one’s feminine features is valued, removing them is grotesque. Acceptable plastic surgery trends for women clearly reinforce a societal standard of white features and femininity as beautiful, condemning trends that stray from this ideal.

While modern ethnic plastic surgery trends are certainly an issue right now, the implications that these types of procedures have, and the precedent they set, are even more worrisome. With the total amount spent on plastic surgery in 2015 being over 13 billion dollars, it is clear that the industry is not slowing down anytime soon (“2015 Plastic Surgery Statistics”). As technology advances, there are sure to be new procedures, better procedures, hitting the market to enhance attractiveness. But where do we draw the line? The technology to genetically modify our offspring may not be too far off, and when it arrives will the option to make one’s offspring more beautiful than naturally possible further stratify rich and poor, ethnic and white? We can already see seeds of genetic modification in the way In Vitro Fertilization treatments are handled. There are currently laws preventing couples from implanting fertilized embryos that have certain genetic abnormalities, prohibiting couples from bringing a child into this world due to the life it may live due to this disability (Bogdanoski 520). The fact that

governments are already beginning to monitor which children can be implanted is worrisome; as society continues to progress, what standards will the government set in the name of giving children the best life possible? As the technology becomes more widespread, could genetic modification be a costly requirement to allow one's child to succeed in a country full of children who were beautiful before conception? As discussed earlier, more attractive children are treated better and seen as more intelligent from a young age; if parents have the income available to give their children that leg up, it is likely the majority of parents will not want to leave their child at a disadvantage. This disadvantage will still exist for children from poor families, especially poor minority families, regardless of whether or not wealthy parents decide to modify their offspring. If genetic modification does become low cost and accessible to the masses, it is also possible that the minimization or erasure of ethnic features seen in current ethnic plastic surgery trends may segue into genetic modification, creating more prototypically white features in ethnic children, leading to a dilution of ethnic features overall. While this is all speculation, it is important to consider these implications as these plastic surgery trends continue to progress and develop, and as the emphasis on attractiveness continues to grow in America.

It is doubtful that America's emphasis on beauty and attractiveness is going anywhere anytime soon. Celebrities that perpetuate racist beauty standards will continue to be smiling down from every other billboard, cast in new movies and television shows, splashed across covers of magazines. There are some ways to maintain accountability though, both in the media and in the plastic surgeon's office. Support for actresses breaking through mainstream beauty standards, such as Lupita

Nyong'o, an up and coming actress with prototypical African American features, is of paramount importance when it comes to changing the beauty standards for ethnic women. There also needs to be more training and higher ethical standards for plastic surgeons that will be working with ethnic individuals. Training should be provided for ethnic plastic surgeons that involve creating a more esthetically pleasing facial feature while still maintaining ethnic characteristics, rather than simply capitalizing on an attitude of white superiority in beauty. But the most important thing, the most critical first step in preventing a future where individuals are further stratified based on their attractiveness is admitting the we, America, have a race problem in beauty. Plastic surgery as it is today may churn out beautiful people, but in the process it has enhanced America's ugliness.

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Hannah Shraim

The Power of Lethal Language

Montgomery College

Panel: Social Justice

Mentor: Professor Effie Siegel

The Power of Lethal Language

On July 4th, 2017, the United States of America will be 239 years old. When our founding fathers pioneered the movement for independence, they wove distinctive ideals into our Constitution that have endured for generations. These values of freedom, equality, and justice are so fundamental that we base our national security, international defense, and domestic policies on them. Essential to upholding these values are American soldiers whose service embodies the epitome of American patriotism. We unquestionably salute our military members in honor of their sacrifice to defend the principles and beliefs of the country we love. Throughout U.S. history, our servicemen and servicewomen have been recognized and revered for their self-sacrificing and courage. So when Khizr Khan spoke at the 2016 Democratic National Convention, he spoke first and foremost as an American father grieving for his son, the late Captain Humayun Khan, who lost his life in service. Yet the Khan family was not afforded the respect guaranteed to military parents because of the faith they choose to practice. In fact, they were maligned by then-Republican frontrunner Donald Trump, who claimed that Mr. Khan was “emotional” and “viciously attacked” the businessman-turned-politician during his speech. Mr. Trump also prompted that Mrs. Khan, a grieving and heart-broken mother, “wasn’t allowed to have anything to say,” implying that Islam, a religion that Mr. Trump knows little about, oppresses the voices of women (Andreozzi).

In an interview with ABC following his ongoing dispute with the Khans, Mr. Trump said that he too sacrificed for America by making “thousands and thousands of jobs, tens of thousands of jobs” (Andreozzi). But how can the workings of a corporate billionaire compare to the ultimate sacrifice of an American hero, whose dedication to

his country was wrongly negated on the grounds of the religion he professed? The very public airing of xenophobic distrust and fears by a popular and highly visible political figure fuels the rampant mistrust of anyone labeled Muslim. President Trump proved just that, even before taking office.

If the Khan family was of a different faith, it is highly improbable that Mr. Trump would have attacked them. The fact that the Khans were ostracized for being Muslim is symptomatic of a broader issue facing the nation. The United States of America, synonymous with tolerance and understanding, cannot be a champion of civil rights if it does not ensure the equal treatment of its civilians at home. We have seen it before in the 20th century, a time plagued by racial segregation, Jim Crow laws, and outright discrimination against African Americans deemed as “other.” The result of this categorization was a deep and hateful divide among the American people that incited violence between those who sought equality and those who sought to maintain the status quo. Ultimately, peaceful resistance prevailed in a movement to unify America.

The trend of confining people to the status of “other” unfortunately still remains. The inherent bias that deems Muslims as “other” in America clouds our judgment and compromises the values that people of this country, regardless of religious belief, have died and continue to die for. Muslims are too often grouped en masse with criminals acting on behalf of heinous ideas mislabeled as mainstream Islam. The result of this reality is Islamophobia, the “fear [of] and prejudice against the religion of Islam and Muslims” (Harmon). Islamophobia has allowed us to forget that Muslims are teachers, students, doctors, lawyers, artists, parents, children, citizens, and heroes of the United States.

The attacks of September 11, 2001 are characterized as the primary event that caused an increase of distrust and discrimination towards the Muslim community, which remains the basis of Islamophobia today. This incident is too often mentioned in conjunction with the Muslim community and not with the radical group that committed the attacks as a separate entity from Islam. Other incidents including the Paris attacks, the San Bernardino shooting, and the rise of ISIS contribute to anti-Muslim bigotry through language in the media and political sphere that characterize political extremists wrongfully acting in Islam's name as Islam's most faithful followers. The recent election of Donald Trump, who thrived on aggrandizing the so-called threat of Muslims to America, has further validated and normalized the hateful rhetoric of his campaign. Trump's ban on immigration that targeted seven Muslim-majority countries, proposal of a Muslim registry, and consistent use of the term 'radical Islamic terrorism' has heightened Islamophobia to a dangerous extent. Interestingly, if his suggested ban was implemented at the time of Captain Khan's enlistment, he would not have served the United States of America and saved the lives his troops from the bomb explosion that cost his life.

Mr. Trump's words and initiatives are cataclysmic not only because they incite fear, but also because this fear stimulates violence, as told through America's preceding history. Muslims are by far the largest group of people affected by Islamophobia, which when enacted can translate to hate crimes and hate speech. According to reports from the FBI, "hate crimes against Muslims are five times more common as of 2015 than before the events of 9/11" (Zaal). This dismal reality of stereotyping can regrettably extend to Sikhs and non-Muslims of Middle Eastern descent for simply *looking* Muslim.

Islamophobia impacts the lives of American Muslims so strongly that some even question the validity of their Islamic identity, specifically Muslim youth. According to Asma Uddin, a religious liberties lawyer, and Uzma Ahmed, a regulatory lawyer, the parents of young American children face the dilemma of teaching Islam to their children in the midst of stark opposition against the faith (Uddin et al.). When has it ever been permissible to normalize hate and fear to the extent that a person's identity becomes at stake?

Isolating and targeting American Muslims not only exposes the hypocrisy of American society, but also hinders our integrity as human beings. As Americans and members of the humanity, it is imperative that Islamophobia be treated as a real issue in order to abate it. From political rallies to media stereotyping and labeling, to classroom tolerance of biased language, the groundwork for intolerance is perpetuated. Accordingly, the most promising way to eradicate Islamophobia is by amplifying the platform of youth activists to hold the media, politicians, and teachers accountable for their use of calamitous language and fostering anti-hate environments in the United States.

The role that media plays in our lives is indisputable, especially in an age where apps like Twitter and Facebook have become a primary medium for sharing news. Since the media has the power to shape public attitudes through its use of language, it holds a vital responsibility to report the truth. The lack of balance used when reporting on Muslims creates a singular, destructive image of them. The media consistently neglects to challenge the “hegemonic narratives and discourses disseminated by governments” and instead amplifies hate against Muslims through reactionary headlines

(Chaudhry 7). The use of improper wording, by linking negative terminology with and generalizing against the Muslim community, and a loss of explanation perpetrates stereotypes against Muslims. It holds true that “the purpose of nurturing informed citizens is for social cohesion,” but the media’s behavior of obscuring rather than presenting reality is destructive to that cohesion (Chaudhry 7). This occurrence directly translates to public opinion; according to a 2010 Pew Research survey, 38% of participants held an unfavorable view of Islam while only 32% held a favorable view (Zaal). Americans base their opinions on what is presented to them. The overwhelmingly negative perception of Muslims due to the belief that Muslims are violent is reason for the hate targeted at the Muslim community.

Correspondingly, the use of specific language and its attribution to people create certain impressions among viewers. There is a stark difference in word choice when reporting on attacks carried out by different people as shown through the Paris attacks, committed by proclaimed Muslims, and the Charleston shooting, committed by a white right-wing Christian. By definition, a terrorist commits violent acts in pursuit of political aims. When reporting the Paris attacks, CNN used the words “terrorists,” “terror attack,” and “radical Islamic terrorism” in reference to the attacker and event (Meilhan et al.). When reporting the Charleston shooting, CNN used the words “suspect,” “alleged church shooter,” and “massacre” in reference to the attacker and event (Sanchez, Payne). Although by definition both are acts of terrorism, since both parties’ violence were politically motivated, the Paris attacks were only labeled as such because Muslims were involved. Scholar Afia Chaudhry concedes that “Christian right-wing extremist, nationalist movements and other violent acts of racism are excluded from the category

of ‘terrorism’ – Muslims are excluded from this general rule of thumb” (Chaudhry 9). Constantly linking the word terrorism with Muslims and Islam creates the stigma that being Muslim is compatible with terrorism. If the term radical Christian terrorism were used, the world would immediately object to the connection between terrorism and a renowned religion. So why is the term accepted when applied to Islam? This unequal treatment of religious labeling underscores the deep-seeded bias against Islam as a whole.

Politicians additionally influence how their constituents think and have the power to create a hate-free climate in America. Notwithstanding, the ideologies and policies proposed by politicians contribute to Islamophobia. According congressman Keith Ellison of Minnesota’s 5th district, the first Muslim congressperson of the U.S., “anti-Muslim hate speech used to be limited to the fringe...[but] because of well-financed advocacy, these ugly views have crept into the mainstream” (Ellison). His words are not merely words, as there is evidence that the interpreting these words in social contexts translates into action. Congressman Ellison faced tremendous opposition when he was first elected to office not on the basis of his policies, but rather on the basis of his religion. Conservative republicans run for office on religious platforms and get elected without question, proving that the issue is not with religious representation in politics, but instead with Islam’s presence in American politics. Ellison, for instance, does not outwardly attribute his support for policies based on his Muslim identity. At the same time, he was automatically attacked for following Islam by politicians wishing to intensify the divide between Muslims and America, making it once again seem that being Muslim is not synonymous with being American.

Yet, showing how much one hates Islam is an acceptable platform for a presidential candidate. In the mid-term elections of 2010, then-Republican presidential frontrunner Newt Gingrich said in a speech at the American Enterprise Institute that “Shariah is a moral threat to the survival of freedom in the U.S. and in the world as we know it” (Belt 217). Gingrich, a politician whose constituents look up to him for guidance on issues, is claiming that the law code of a world religion is a threat to America with no justification whatsoever. His lack of evidence is destructive since his claim is only declared as a means to get elected. What is even more frightening is that as an acknowledged academic, he consciously understands the implications of his statements on American Muslims, yet he continues to perpetrate hate. Another example of the malpractice of politicians can be shown through Herman Cain, former Republican presidential frontrunner. In an interview with *Christianity Today*, Cain said that “[b]ased upon the little knowledge that I have of the Muslim religion...they have an objective to convert all infidels or kill them” (Belt 214). Just as Gingrich created false allegations against the Muslim community, Cain did the same. The apparent issue here is that spreading Islamophobia spreads hate among people, which is counterproductive to the role representatives have in encouraging American cohesiveness.

Both Republicans and Democrats have a duty to denounce the sayings of the far-right seeking nothing but political gain. Mayor Bill de Blasio of New York City is a perfect representation of how lawmakers should respond to incidents of hate. In light of Mr. Trump’s suggestion of a Muslim registry, De Blasio responded in a public address in Cooper Union by saying, “if all Muslims are required to register, we will take legal action to block it...[and] to all the Muslims who have had their faith belittled – we stand by you”

(De Blasio). De Blasio transformed the rhetoric of fear and exclusion to language of acceptance and inclusiveness. All politicians have a duty to denounce the rhetoric circulated by their fellow civil servants and stand in solidarity with fairness and equality, just as De Blasio did. The First Amendment of our great nation firmly declares that “congress shall make no law respecting an establishment of religion, or prohibiting free exercise thereof.” With more and more politicians following De Blasio’s impeccable example of following the tenants of our nation’s foundation, the fear of Muslims can slowly diminish.

Sadly, many politicians failed to mimic De Blasio’s response after Trump enacted a ban that prevented immigrants, refugees, and green card holders of seven Muslim countries from entering the United States. Current speaker of the house Paul Ryan, who during the primaries rejected a Muslim ban, supported Trump’s executive order, claiming that “it is not a ban on people of any religion” despite its preference to Christians (Makarechi). Senate majority leader Mitch McConnell, who once declared that a Muslim ban is “completely inconsistent with American values,” followed suit in his transformed approval for Trump’s executive order (Makarechi). Even Vice President Mike Pence, who tweeted his opposition to the ban during the primaries, now wholeheartedly backs the ban. Switching positions for the sake of amplifying one’s political stance is unjustified. Individuals like Elizabeth Warren, John McCain, Chuck Schumer, and Lindsey Graham *actually* upheld American values through their opposition of Donald Trump’s initiative regardless of their political party affiliation. Their actions are what will heal the presence of Islamophobia in America.

A counterargument to the Republican reproaching of Islam is that Republican politicians are genuinely fearful for the security of the United States. However, the reality is that “U.S. social conservative speech on the topic of Islam as a security threat [serves] as a platform from which even more direct political struggle could be waged” between conservative Republicans and the left (Belt 217). These Republicans go as far as supporting figures like conservative Catholic deacon Robert Spencer, who was “positioned as director of the newly created blog, Jihad Watch” that functioned to oppose the “politically correct” narrative of Islam “with a distinctly politically *incorrect* counternarrative” (Belt 211-212). The act of fueling ignorance by propagating hate is clearly unattributed to security concerns and rather based on promoting a broader political agenda. This situation and the consistent claim of political correctness by conservative republicans only circulate Islamophobia and further separate citizens into groups of “us” and “them.”

While Islamophobia is inflicted in media and political platforms, it is crucial to recognize Islamophobia’s extension to classrooms as well. People are not naturally hateful beings; the animosity displayed in schools across the country is taught and must be addressed at a young age to decrease with coming generations. According to Hate is taught and the only method of unlearning this phenomenon is re-establishing trust among people (Annan 4). In a middle school on the Eastern coast of the U.S., a history teacher prepared a special activity to commemorate the tenth anniversary of September 11, 2001. Students had to describe how they feel about the building of a mosque near the World Trade Center in New York City using a list of vocabulary terms (Zaal). They were to construct a paragraph using the terms, “Al Qaeda, terrorist, Islam, Muslim,

hijacker, and Islamist" (Zaal). Clearly, the ascription of negative words with Muslims creates the stigma that Muslims are violent, vengeful beings. In this specific instance, the teacher's activity allowed her students to emphasize violence and to accept hatred as a means of treating and viewing others.

It is critically important that teachers "deconstruct stereotypes and create anti-oppressive classrooms that allow for difficult dialogue in a responsible way" when approaching socially sensitive issues (Zaal). As reported by Nazia Kazi, assistant professor of anthropology at Stockton University, the classroom provides "a space for exposure to topics that many [feel] the mainstream media and political discourse [have] foreclosed" for students of higher education (Kazi). The deep learning extended through such conversations "inspires paradigm shifts" (Kazi). Instead of giving more voice to hate, teachers should appeal to humility by treating current events as opportunities to learn, and instill critical thinking in trying times (Kazi).

An opposing viewpoint to this argument is that teachers should remain unininvolved in political affairs. However, the fact of the matter is that as Americans, we must act to properly represent our "constitutional republic [that has] a hard-earned culture of tolerance of all religions" (Cohen 186). Contributing to the rise of Islamophobia in our classrooms alienates Muslim students from their peers and the rest of society. Cultivating an emotionally neutral space with classrooms void of political conversations "actually does an intellectual disservice to students trying to make sense of the racial realities unfolding around them" (Kazi). If our goal as Americans is to foster unity among all people, then these intense conversations are necessary in bridging

people together. This is why classrooms are one of the main targets that should be accounted for in eradicating Islamophobia.

So far, the media, politicians, and classrooms have been studied in terms of spreading Islamophobia, but they are also acknowledged as methods in eliminating it. In addition to eliminating Islamophobia within these means, youth activism constructs a strong foundation that inspires others to take action. In fact, the barriers to democratic participation are “the greatest challenge facing youth,” which augments their drive for activism (Ginwright 27). Youth activism has a history of effectiveness. In January of 2015, a city in Maryland unanimously decided to extend the right to vote to 16-year-olds due to the testimonies of young activists (“Success Stories”). The mobilization of fellow peers is what urged city officials to make the call and create real change. Young people’s excitement over advocating for social issues is also seen in their response to Trump’s nomination as president. The day after the election, MoveOn, a youth-led organization, “urged Americans to gather peacefully to ‘take a continued stand against misogyny, racism, Islamophobia and xenophobia’” (Miller). Within hours, nearly “275 protests and vigils had been organized nationwide” (Miller). Thus, the preexisting advocacy displayed in our youth should be enlarged to combat and end Islamophobia. Through this platform, young people can take the streets, contact legislators, and urge media officials to display the proper narrative of Islam and break the tendency to mass Muslims with terrorists acting in their name.

A contradiction to this point is that young people are too naïve to understand the complex issues of our time and do not entirely comprehend the impact of these issues. In actuality, America’s youth “are subjugated to serious social problems such as racism,

sexism, and homophobia and are often forced to navigate these in isolation,” and consequently have a stake in stopping these issues (Ginwright 30). The fact that young people are organizing “to transform oppressive social conditions into healthy, fair, and democratic realities” means that America is headed in an upward direction and progressing as a nation (Ginwright 31). Young people should be supported and joined in their fight for justice; in doing so, a more progressive America will be established.

The worst feeling in the world is feeling unwelcome in your own home. America – the melting pot of faiths, ethnicities, and sexualities – should never foster a hostile climate for its people. Our constitution’s first Amendment rights guarantee the rights of freedom of expression, speech, and religion. In honor of the nation we love, these rights must be protected within social constructs and respected in our daily lives. The only way to solve destructive social issues like Islamophobia is to eradicate it at its source. The media, politicians, teachers, and activists must bridge together in a communal effort to remove the hate dividing Americans.

Imagine, god forbid, that you were in the position of Mr. Khan. Imagine the feeling he had when his experience and mourning was discredited by his fellow Americans. Imagine being belittled and unfairly targeted because of your faith. American Muslims should not have to justify their presence in this country, their country, since they have been demonized by the acts of a few. We have an obligation to protect and defend our Constitution and fellow citizens. Step by step, through our united voiced, Islamophobia can cease to exist.

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Chaya Wagschal

Time and Space; the Beginning and the End

Rockland Community College

Panel: STEM

Mentor: Professor Saeed Safaie

Abstract

In the past half a century, we have experienced a surge in scientific discovery. We now have enough data available to successfully build concrete theories about the start and end of our universe. Research presented in this paper provides a scientific and theoretical discussion about the evidence suggesting a definite start, and almost definite end to time and space. Time and Space are not only finite, but they start and end at the same time. They are, in fact, interconnected.

Time and Space; the Beginning and the End

At the very foundation of human reasoning, people seek to answer the question, “How did it all begin?” Up until the 19th century, scientists believed that the answer to this question should be left up to religion. In the book *A Brief History of Time and Space*, Stephen Hawking explains that many people would “regard the question of the initial situation as a matter of metaphysics or religion” (Hawking, 1998). For a very long time, religion was the only source for people to turn to. Buddhists believe that world systems constantly appear and disappear in the universe (Nguyen 1993), and Muslims according to the Quran believe that “the skies and the earth were joined together as a ‘unit of creation’” (The Qur'an, sūrat I-anbiyāā 21.30). Christians and Jews study the account in the Bible that explains how God created the world, beginning with the phrase: “In the beginning God created the heavens and the earth.” Two verses later, it says “And God said, ‘Let there be light,’ and there was light.”

We are lucky to live in a generation where we have access to scientific evidence that explains and proves many different notions, answering questions about the very beginning of time and space, which many of us have only “believed” for a long time. The creation of the world ex nihilo, as well as the presence of a very strong force of energy or “light”, can now be explained, measured, and observed scientifically and mathematically.

Up until 1920, the world was assumed to be static and unchanging in time, even though Einstein's original Theory of Relativity did not support that. Einstein himself didn't believe what his own mathematical equation was trying to tell him. His Theory of

Relativity came to the conclusion that the universe must either be expanding or contracting but was not static. To solve what he saw as a problem, he fudged the equations by adding a cosmological constant that warped spacetime in reverse and balanced the attractive effect of the matter, thus balancing the equation in a way that allowed for a static universe.

The undeniable proof that the universe is expanding came after Edwin Hubble received access to a very powerful, 100-inch telescope. He used Doppler's effect—a phenomenon that even those of us who do not know the terminology, are intuitively aware of. Most of us can tell whether a sound is approaching us or moving away from us. For example, a car is moving towards a person, the sound waves will shift to a higher frequency which is heard as a higher pitch, but when the car is moving away from a person, the waves shift to a lower frequency which is heard as a lower pitch (Serway & Jewwett, 2010). While light waves act differently than sound waves since they do not travel through a medium, Edwin Hubble was still able to apply the Doppler Effect to light. He looked at the light spectra of many individual stars through a triangular-shaped piece of glass. By doing that, the light gets separated into a spectrum of colors. He noticed that they all experience the same shifted by the same amount towards the red side which is all the way on the right of the color spectrum, indicating a lower frequency. That means that they must be moving away from us. This was a remarkable discovery. If the stars were simply moving around randomly like most people believed they did, then there should have been some red shifted and some blue shifted stars. However, he did not find any stars that are shifted blue, which would have

indicated that the star is coming towards us. The fact that every single star is moving away from us was an indication that the universe is indeed expanding. He not only discovered that they are moving away, he also discovered that the farther away they are, the faster they are moving away.

If we know that all the galaxies are moving away from us, that helps us gather information about the past. Imagine if we were able to set up a video camera at the time of creation recording everything happening in our universe. If we sped it up like a time-lapse and watched it in reverse starting from today going back to day one of creation, it is plausible to believe that we would see the stars and everything in our universe getting closer and closer until the entire universe would be very compact.

Stephen Hawking and Roger Penrose published the “Penrose–Hawking singularity theorems” where they were able to prove through Einstein’s theory of relativity, that the universe did indeed have a beginning. At that beginning, referred to as the Big Bang, the universe was very small. The entire universe was scrunched into a single point with infinite density (Penrose, 1965).

A physicist by the name of George Gamow predicted that we should still be able to see signs of a very hot and dense early universe that glowed white hot. However, since our universe has expanded a tremendous amount since then, that light would be extremely red-shifted, and therefore, extremely low frequency. In 1965, two American physicists, Arno Penzias and Robert Wilson, accidentally discovered the proof to this prediction. They were working at the Bell Telephone Laboratories in New Jersey where they were trying to test a very sensitive microwave detector. Their detector was picking

up microwaves which are very low-frequency waves with a wavelength of around one centimeter, but they weren't coming from any particular direction. They started troubleshooting, and cleaned their detector of bird droppings and tried again. No matter what they did, whichever direction they pointed the detector in, they picked up the same amount of microwaves. They knew that if the waves were coming from within the atmosphere, then they should have been weaker when the detector was pointing straight up. This would be due to the fact that when received directly overhead, the waves travel through less atmosphere. Since that was not the case here, they knew that the waves must be coming from outside the atmosphere. They repeatedly tested it and found that the radiation was constant during the day and night and throughout the year. They were able to conclude that even while the earth was rotating on its axis and orbiting the sun, the waves they detected were the same. They realized that the radiation must be coming from beyond the solar system (Hawking, 1998). It was later discovered that there were slight variations in different directions, consistent with model of inflationary universe. Nonetheless, at the time, it was a remarkable discovery and Penzias and Wilson went on to receive the Nobel Prize for their discovery of what we now call the "cosmic background". This cosmic microwave background (CMB) serves as observable evidence. This is believed to be the electromagnetic radiation that is left over from the time of recombination in Big Bang cosmology (Wright, 2006).

The Big Bang was not only the beginning of energy and space. It was also the beginning of time. The discovery of an actual beginning challenged those people who used to think that the universe has always existed, and time and space were infinite.

The idea that the world was always here and that time is infinite contradict both science, and even pure logic. It is scientifically not possible as it is in direct violation of the second law of thermodynamics which states that disorder always increases with time (Serway & Jewwett, 2010). Therefore, if the universe was infinitely in existence, then the world would be in complete disorder by now. Even logically, if the universe has been here since infinity, then by now, the light of so many stars would have reached us, and the sky would be as bright as the sun (Hawking, n.d.).

At the time of the Big Bang, the density of the universe was infinite. It was a singularity where all the laws of physics, the deterministic laws that govern the universe, break down. That means that the universe after the Big Bang was independent of what was there before. The amount of matter in the universe can be different since the law of conservation of energy would break down as well at the Big Bang. Everything we now know to be true about our universe, for us, started along with the big bang. Anything that happened before then, cannot be defined or observed by us, and scientists agree that they may as well be cut out of the theory. Einstein's General Theory of Relativity, as proven by Stephen Hawking and Roger Penrose, supports the idea of singularities whenever a certain amount of matter was present in a region. Their first theorem shows how time comes to an end when a star collapses and forms a black hole. Since the universe contains sufficient matter, the expansion of the universe is like the time reverse of a black hole, and therefore, contains a singularity (Hawking n.d.).

The Big Bang was not only the beginning of the universe, it was the beginning of time itself. Instead of viewing space and time separately, Einstein preferred to think of

them as one entity, in what he called space-time. He showed us that matter, mass and the flow of time are intrinsically connected. When two observers, they may be people or particles, are moving relative to each other, these observers may not agree on how much time passes between events, how much space there is between things at any moment, or the chronological order of events. Both observers may measure things correctly, and they are both right. Although two observers in relative motions will measure different distances and different elapsed time between the same two events, they will agree on the spaced time interval between two events.

The space-time interval can be written as the following mathematical expression: Spacetime Interval = $(\Delta x)^2 - (c\Delta t)^2$ where Δx represents the distance between events, c represents the speed of light, and Δt represents the time between events (O'Dowd 2016). The space-time interval can be a positive value, a negative value, or zero. When the value is positive, nothing can get from one event to the other, and there are always observers who disagree about which one happens first. When it's zero or negative, things can get from one event to the other, and everyone agrees on their sequence. (There is no universal flow of time, but it is defined locally for an observer.) What space-time really is, is a four-dimensional mathematical space that includes our three-dimensional space, and time as a fourth dimension (O'Dowd 2016). This four-dimensional model was introduced by Hermann Minkowski, Einstein's former math teacher. This model is mathematically represented by: $s^2 = x^2 + y^2 + z^2 - ct^2$ (Walter, 1999) This can be thought of as the Pythagorean Theorem just expanded to a fourth

dimension, with the fourth dimension represented by time times the negative speed of light squared.

Points in spacetime correspond to events, which are geometric relations representing distances between points in that 4D space. Technically, you, the reader are a geometric object in spacetime. You are a line segment joining the points representing the events between your birth and your death. You are not moving along the line. You are the line segment (O'Dowd, 2016). Every point on that line has both time and space intrinsically part of it. There is no space without time and there's no time without space. Time is finite and has both a start and an end. It started along with the rest of this universe, at the big bang.

We can't come to conclusions about the end of time with the same amount of scientific backing and evidence as we can for the beginning of time. However, we can theorize about it based on two factors: the expansion of the universe, and the laws of thermodynamics. The universe experiences two opposite forces; the momentum of expansion, and the pull of gravity. The rate of expansion can be expressed with H_0 , Hubble's Constant, and the strength of gravity depends on the pressure and the density of the matter in our universe. Since the pressure of most forms of matter is low, what we consider most is the density. If the universe reaches a density referred to as "critical density", which is proportional to the square of Hubble's constant, then the universe is at balance, meaning it does not collapse or contract. If the density is less than critical density, it should continue to expand forever. NASA's WMAP mission and observations of distant supernova lead to the conclusion that the universe is indeed accelerating

(Wollack, 2014). Given what we know about density and its effect on the universe's acceleration, the fact that the universe was found to be accelerating lead scientists to the conclusion that there is a form of matter present that has strong negative energy, which is gravitationally repulsive, similar to the cosmological constant that Einstein introduced way back (Wollack, 2012). Scientists sometimes refer to this energy as "dark energy". This assumed presence of dark energy leads scientists to conclude that the universe will continue to expand forever (Wollack, 2014).

If the universe were to indeed expand forever, it would have drastic implications on the physical state of our universe. One theory, referred to as the "Big Rip" suggests that if the universe keeps expanding, then there may come a time when it expands so much that it starts to rip everything apart, atom by atom, until it leaves the universe full of single disconnected particles. In order for this to happen, the momentum of expansion which pushes matter apart would have to be greater than the gravity that holds matter together. When dark energy wins its battle against gravity to a large extent, the big rip becomes a possibility.

The big rip seems a bit dramatic and perhaps even unlikely. According to what we know about the laws of physics, the Big Freeze seems like a more comprehensible theory in regards to the end of time. Based on the Second Law of Thermodynamics, we know that things will always go from order to disorder. In other words, heat in a system will always keep dispersing until all the heat is distributed evenly, and the entire system is the same temperature. If that were to happen to our entire universe, that could potentially lead to a state where is no more usable energy or heat. Additionally, the

world would be so vast, that gas would spread so thin that no new stars can form. In the “Big Freeze” model, little or no energy is left, mechanical motion as well as any process that consumes energy, including our very living on this earth, would stop (Lavendar, 2013). Eventually, time becomes an endless void in which nothing happens. Once the universe gets to that state of equilibrium, while matter would still exist, it would be in particulate form, and particles would simply bounce around with no energy being exchanged between them (Woollaston, 2016). All there would be left is a cold dark dispersion of particles.

The picture that the Big Freeze Theory paints should not be overly concerning to us as individuals. According to scientific observations, the universe should continue to exist for another few billion years.

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Seeing the Light: Eye Innovation Precambrian to Present

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Panel: Biology

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Seeing the Light: Eye Innovation Pre-Cambrian to Present

"The eye to this day gives me a cold shudder," Charles Darwin once wrote to a friend. If his theory of evolution was everything he thought it was, a complex organ such as the human eye could not lie beyond its reach. And no one appreciated the beautiful construction of the eye more than Darwin—from the way the lens was perfectly positioned to focus light onto the retina to the way the iris adjusted the amount of light that could enter the eye. In *The Origin of Species*, Darwin wrote that the idea of natural selection producing the eye "seems, I freely confess, absurd in the highest possible degree." Carl Zimmer, *The Tangled Bank*, 2009.

INTRODUCTION

The eye today has extensive variation across species. While some creatures remain at the level of detecting only night and day, or up or down, others have remarkable abilities that seem nothing short of superpowers. Mantis shrimp are able to see not only color, but the invisible, based on the physics of how light spins. This enables these mantis shrimp to locate translucent ocean prey, as well as signal with their own bodies to potential mates using a channel of communication invisible to its neighbors (Franklin, 2013). Oakley et al. (Gallessich, 2009) have sequenced genes in

the Hawaiian Bobtail squid that couple their eyes with an additional function derived from retinal cells to produce bioluminescence. This ability is thought to help evade predators by disguising the pigmented retina from the rest of its gelatinous body by lining their enormous eye with similar levels of light as the oceans above it. This form of camouflage is known as counter-illumination. The retinas of ogre face spiders are so sensitive to night time vision that they burn off with the first rays of dawn, and must be regrown every evening (Blest and Land, 1977). These spiders are formidable nocturnal predators, but functionally blind for half their lives. A number of species use mirrors to increase the amount of light that hits their retinas, sometimes by reflecting light through the retina twice. Such mirrors allow spookfish to look both above and below the water surface simultaneously (Wagner, 2008).

The physiology of the eye is no less remarkable than its anatomical developments. Animals as seemingly common as ducks are capable of achieving speeds of 60 mph if chased through the air (Ehrlich, 1988). Unfortunately for the duck, its predator the peregrine falcon reaches heights of 37,000 feet and can attain 200 mph. While that feat may seem a result of remarkable muscle and bone, the accuracy and processing speed of identifying and tracking what is essentially the size of a fleck of pepper at such speed is equally remarkable. How something as extraordinary as the eye has evolved to its current complexity among vertebrates is a conundrum that has stumped biologists since Charles Darwin.

Part of the mystery is that, while most other anatomical structures can be traced back to a series of changes across time using the same building blocks, the eye contains innovations that are difficult to follow. For example, every organism has a

membrane. Every moving animal creates motion by using a soft tissue to pull upon a more rigid tissue. Allow skin, muscle, and three tiny bones to evolve long enough, and you eventually have the human ear.

Not so with the eye. No other structure involves the cornea, lens, and vitreous fluids which are three near perfectly clear tissues (Duker, 2008). This alone is a triumph of physics, as what living particles of lens cytoskeleton contained must align just so to allow photons unimpeded access across its entire length. These lens cells contain no nucleus or organelles to scatter light. They are nourished entirely through blood vessels initially, and after its prenatal initial growth, then nourished entirely by the aqueous humor. The ability for one of those tissues to change shape in such precise alignment as to bend light to hit a retina to within a few micrometers, less than the width of a human hair or the image will be blurred beyond recognition. The cornea is no less of a wonder; riddled with nerves, it must nevertheless remain clear and filter out only damaging rays while providing 2/3 of the eye's refractive power. And finally, another set of unusual cells somehow turn photons into electrical impulses to produce up to a million colors the human mind can distinguish.

Since their revolutionary paper published in 1994, Nilsson and Pelger suggest that even an organ as structurally intricate and finely calibrated as the eye can indeed result from a series of evolutionary changes. In their research, they estimate such a transformation from the existence of photoreceptors to a vertebrate eye can be had in as short a time period as 363,992 generations or approximately 500,000 years (Nilsson, Biol Sci, 1994). This process of eye evolution in various forms, they assert, has occurred 50-100 times. How can this be?

There are significant objections to this time estimate, but the notion that an eye can evolve from lesser, separately functional components has since been extensively examined. Three main approaches have been used: 1) fossil evidence and its attendant, recently improved technology; 2) currently existing species whose eye structures and corresponding genetic code can be organized to demonstrate increasing structural and functional complexity, the combination of which can also be used to map onto their phylogenetic organization; and 3) structural developments of composite materials that both serve an independent function in the organism lineage, and yet which eventually acquires the function or becomes repurposed to serve as components of a functioning eye.

Within these three separate approaches, many of the questions surrounding Darwin's fear of the absurd have been answered in this research paper.

FOSSIL EVIDENCE

While common sense indicates that soft tissue does not make a good candidate for the fossilization process, in fact some eyes do undergo biomineralization. Indeed, trilobites have been found to "look through rocks", as do modern day brittlestars (Slingsby, 2013). The calcite content of their rigid crystalline lenses embedded in their outer coverings allow underlying photoreceptors to collect light. Such physical structures have indeed been recently observed in trilobite fossils (Fortey and Chatterton 2003, Exhibit 1). This type of lens, however, has its limits: its rigidity prevents muscles from being able to change their shape and aid in focusing the image. Their view would be limited to lower resolution or fixed focus.

Beyond fossilization of actual eye structures, however, an excellent assortment of fossils have been in the past decade discovered to contain an unprecedented amount of detail, most relevantly, the optic casing of the skull. A 3D digital reconstruction of Gnathosomes fossils show the fissures and canals through which up to seven optical muscles, used to rotate each eye, and one optic nerve pass (Young, 2008; Lee, 2011; see Exhibit 2 & 3). This finding alters the assumptions regarding how gnathosomes relate to other species, as most have been found to have only 6 optical muscles. If the additional muscle is the internal rectus rather than an additional external ocular muscle, then it becomes much more similar to basal osteichthyans. The optic capsule of ossified cartilage also revealed vascular canals and possibly a gland-like structure that oxygenates the retina via the ophthalmic artery in fish, and drains the blood from the retina, as well (Burrow, 2005). This development within the fossil record indicates the advancement of easing the oxygen burden on the eye significantly.

Details exposed by other recent finds clearly reveal indentations of rods and cones that are present in the fossil remains of other placoderm fish as well (Burrow, 2005, Exhibits 2 & 3). This discovery demonstrates the ability to detect color and varying intensities of light during that geologic era in the ocean. Here, we see opsin organized in a highly structured fashion, and are capable of comparing anatomy as basic as whether the rods and cones face toward or away from the retina, a distinguishing feature that separates yet those creatures that somehow manage to see “backwards, upside down”. This fossil record is thus an important contribution to the understanding of the advancements attained up to that point, and is a surprise find, in that the record of soft tissues such as rods and cones can still be obtained.

These examples provide impressive advances, heretofore imagined impossible, in gathering physical evidence of specific eye structures from as early as 300 to 541 million years ago. How they evolved, however, requires much more evidence than even these remarkable discoveries.

CONTRIBUTION OF CURRENT SPECIES

Darwin's theory of evolution was famously based not on some unbroken chain of fossils but upon his observation of living finches. Likewise, a tree of life may be recreated illustrating the relationship of ever-increasingly complex organisms over geologic eras, through a detailed study of physical homology, and more recently, genetic similarities giving rise to functioning protein fragments of living species. In this manner, vital information is added to these newly established fossil records. Thus begins the paper's focus on contemporary creatures.

The issue of course, begins with what can be functionally considered an "eye". While eyespots are nearly universal among all major animal groups, including some unicellular organisms, its function may initially have been rudimentary. Many have suggested that as an eyespot can detect only light from dark, its primary use is for differentiating night from day, or perhaps aiding in swimming up and down an ocean column. In this sense, the ability of eyespots cannot be considered "seeing", certainly not a focused image through a camera-like eye. It is more like a rudimentary form of the SCN (suprachiasmatic nucleus) in the human brain, originally used to regulate circadian rhythms.

Ironically, the pineal gland of the brain, often involved in sleep patterns by producing the hormone melatonin, serves an additional function in the heads of some cave salamanders: through its pale translucent skin, it also serves to detect changes in the dim cave existence via its red-sensitive cone opsins. It appears to be a type of “atrophied photoreceptor” known as third eye that is still occasionally found among some amphibians. The curious attribute about its existence within the skulls of cave salamanders, however, is that this patch of opsin is still capable of light sensitivity within the dim confines of cave life (Kos, 2001). In fact, it is precisely the discovery that opsins of both r and c types are found in numerous species in many other parts of the body besides the eye. Hence began the research to understand the purpose of its unexpected distribution, discussed in the following section.

Whether merely an internal clock or the nascent window into the world, nevertheless the mechanisms found within eyespots provide basic biochemistry for seeing. The photosensitive cells which originally may reach back as far as photosynthesis in plants—these cells began to contribute to the evolution of vision the moment they became capable of responding to light by forming a nerve impulse, sometimes bypassing any brain and transmitting directly to the muscle (Gehring, 2005). This receptor cell seems to have diverged in the pre-Cambrian period between protostomes (microvilli-based opsins) and deuterostomes (cilia opsins), during which the photoreceptors of these eyespots evolved dozens of times (Tomarov, 1997).

From there, Nilsson, 2013 (see Exhibits 4 & 5) outlines four major steps in the functional basis of eye evolution: invagination to create an eye cup capable of assessing directionality; the narrowing of the opening to aid in focusing; the

development of clear cells with refractory power to serve as a lens capturing more light and extending the field of vision; and the formation of aqueous and vitreous humor, for higher resolution precision with a protective hard clear cover of the cornea (see Exhibit 5).

Hayakawa, S. 2015 took this model a step further by examining a camera-type eye structure evolution in a dinoflagellate. The surprise is simply that while most tiny organisms rely on a relatively simple eyespot onto which few deign to convey the status of ‘eye’, Hayakawa asserts that even a unicellular creature has co-opted common cellular molecules into creating something with the complexity of a vertebrate eye.

Why this research is remarkable is that an organelle known as the hyalosome in a unicellular organism the ocelloid, is modified to provide a structure resembling and capable of refractory power, and capturing and concentrating light. It even looks like a human eye. It contains the molecular equivalents of a cornea, lens, and pigmented cup structure (Gavelis, 2015). The shape of the retinal body was observed to change with the illumination conditions, altering the refraction of light. Ocelloids also have rhodopsin gene fragments expressed in a highly ordered arrangement within this retinal body, demonstrating the ability to act as photoreceptors. In this sense, no organism is too small to produce something that structurally and functionally serves as a complex ‘eye’. How long such a structure has existed in the history of the earth, is a question that could upend Nilsson’s theory on eye evolution.

The more important advance here seems to be that this apparently universal solution to vision—that the components of cornea, lens, and cup structure (with retina) is advantageous at both a molecular as well as a multicellular level of organization.

Few substitutes for vision exist for the geographical navigation of the physical world. The most well known of course is echolocation in bats and dolphins/whales, and a few shrews. While this may not qualify entirely, few realize that elephants can locate the position of animals by feeling the vibration of steps through their apparently sonic feet (Schwartz, 2005). The use of electricity is known for hunting but less well known for its uses in navigation (magnetoception). Among the creatures who can ‘see’ electrical fields around them including that of their prey are poor-sighted elephant nose fish, and night hunting platypuses; as well as sharks, rays, and an Oriental hornet (Bates, 2014). And thermoception, the detection of thermal heat sensors giving off infrared light of some snakes like pythons and boas, whose jaws are lined with sensitive pits, and vipers who sense this between their eyes above their nose; a daring beetle that seems to have developed similar pits due to their penchant for laying eggs in burnt wood; and the common bed bug, who undoubtedly torment us at night by navigating with their heat-sensitive antennae. The vipers perform the feat of somehow integrating both retinal vision and thermoception via bimodal neurons in their optic tectum (Newman, 1981). Such creatures are able to detect not only where warm-bodied animals are in the dark ... but where they have been. Our bodies, our tracks: thermoception is the only known type of vision that allows animals to “see in the past”, to note our remaining heat after we have already passed by. Such unusual retinal vision substitutes represent a vanishing small percentage of the animal kingdom.

The understanding of near universality of light-detecting has been advanced further through the works of Gehring, 2005, Tomarov, 1997, and Halder, 1995. They all take the next step in challenging a long held belief that eyes are polyphyletic and argue

for the evolution of photoreceptors as monophyletic because of the organizing ability of the PAX 6 gene that controls eye development. This genetic trait is shared by all bilaterian animals including the aforementioned box jellyfish; and dinoflagellates who may have transferred photoreceptor genes to the types of cnidarians who likewise produce a camera-like eye; and squid and other mollusks. Tomarov investigates further the RNA involved in PAX variants in adults and embryos of squid, and demonstrates that squid and vertebrates may have a common evolutionary origin of eyes because the corresponding PAX 6 gene in vertebrates likewise aid in the development of the visual and olfactory systems there.

Lamb, 2007, furthers the study by comparing the evolution of opsin, photoreceptors, and the eye cup in vertebrates. Lamb nicely summarizes and captures in the extensive, descriptive chart (see Exhibit 8: Lamb's extensive chart is included in its entirety for its detail and relevance, particularly its ability to locate steps in eye evolution within each era). The only disappointment is that such a chart has not been extended to more recent times as 430 million years ago.

Extrapolating backwards from the shared opsin types and subsequent eye structure development found in living species, and what is known about how these species are related to one another, this chart maps out estimated evolution of the structures within the eye (Lamb, see Exhibits 6 & 7).

EARLY PRACTICAL FUNCTIONS OF STRUCTURAL COMPONENTS OF THE EYE

The cold shudder Darwin experienced over his optical conundrum was not merely the lack of fossil evidence or a chain of living creatures that could serve as an

illustration of increasing complexity as the earth's biosphere developed from microbes to vertebrates. Nor was it lack of access to the optical structures within living creatures. It was that the components of a complex eye are themselves so complex and finely coordinated, that to imagine they came together by chance was 'absurd'. Thus the task of understanding how each component has arisen contributes to the evolutionary puzzle. Why would each of these structures be advantageous, independent of each other and of the complex eye they eventually come together to build?

Oakley and Speiser, 2015 directly address Darwin's concern that structures of such coordinated complexity could not have arisen simultaneously, without defying probability. They illuminate the potential origins of each component by focusing on five specific traits that developed prior to the eye, whose functions were useful long before the species acquired vision.

The pair of researchers explain:

"We define a research program to break complex traits into component parts and to study the individual evolutionary histories of those parts. By doing so, we can learn when the parts came together and perhaps understand why they stayed together. We apply this approach to five structural innovations critical for complex eyes and review the history of the parts of each of those innovations. Eyes evolved within animals by tinkering: creating new functional associations between genes that usually originated far earlier. Multiple genes used in eyes today had ancestral roles in stress responses. We hypothesize that photo-oxidative stress had a role in eye origins by increasing the chance that those genes were expressed together in places on animals where light was abundant."

Oakley et al identify the evolution and functions of eye structures that are advantageous in other areas of the body besides the visual systems. Opsins for example, are related to melatonin receptors, and have been found in a number of areas

outside of the eye. Melatonin breaks down in light and may have been a form of anti-oxidant. The opsin types are thought to have been used early in evolutionary history as a type of cell defense. Opsins are thought to act primarily as ‘heat shock absorbers’ to cradle and protect vulnerable proteins from too much light (Nilsson, 2013).

Additionally, pigments can be used to protect cells from harmful levels of light. The gene families that produce melanin and pterin, protect by using those pigments to absorb harmful photons, and as anti-oxidants, reduce tissue damage.

Different genes for lens proteins are also stress enzymes. For example, α B-crystallin/HSP found in eyes also protect mitochondria against oxidative stress. Because light leads to photo-oxidative stress and DNA damage, responses are mounted in cells exposed to much light. Naturally, they would form patches in the areas of greatest vulnerability, on top of organisms, facing the sun. While in the ocean, animals with photoreceptors sensitive to sunlight penetrating the waters would thrive by descending during the day and rising at night. They might also indicate when their prey would be most available. As primitive photoreceptors they were able to not only protect but aid burrowers with direction, or detect increasingly harmful levels of UV light.

One type of crystallins, alpha, is thought to have been evolutionarily recruited from chaperone proteins and are found to help maintain the lens proteins which must last a human for an entire lifetime (Andley U, 2006).

Slingsby 2013 research demonstrates the re-engineering of existing proteins originally used to chaperone, to become crystalline components of the lens of vertebrate eyes.

As each patch of photoreceptors developed around a retina-like structure, they began to provide the ability to detect night and day. With invagination and pigmentation, they could not only detect up and down, but perhaps a very fuzzy view of predators or prey passing above. As they formed in membrane-stacking organization, creatures were able to detect predators and prey with greater precision.

As groups of organisms developed their niche of predation, evasion, habitats, and such, the precision of the eye rose sharply: from low resolution, for example, to high resolution; or speed of processing; membrane stacking efficiency; protein transduction cascades; or the efficiency of opsin to transform from trans to cis states; use of rhabdomeric opsins that have faster signaling, more dynamic range, or better ability to distinguish signal from noise (see Exhibit 7).

More than identifying potential uses, the study of various opsin types became a way of likewise organizing the relationships between organisms. Through comparing the development of the many variations of opsins (neuropsin, arthropopsin, melanopsin, peropsin, cnidops, pinopsin, parapinopsin, parietopsin, encephalopsin, pteropsin, anthozoa c-opsin, cephalochordate Opn3, platynereis c-opsin, vertebrate ancient and vertebrate visual opsins), across clades and phototransduction components, a rough tree of life could be created.

CONCLUSION

The great irony of course, is that while eyes have been historically upheld as an example of how the theory of evolution fails, it's recent study has contributed greatly to the ability to model more accurately the tree of life (Oakley, 2015). It has been

established that opsin-based phototransduction does not predate animals but opsin-like sequences are found in animals. Opsins do predate bilateral animals, as well as eumetazoan animals. The relationship between the families and clades of the animal kingdom can now be arranged according to the origins and changes across four protein components of the eye rather than merely estimating relations via the entire eye structure itself: genetic classes of screening pigments (melanins, pheomelanins, pterins, and/or ommochromes), photoreceptors, visual retinoid cycles (enzymatic pathways), and lens materials (types of crystallin proteins) have now been used to propose fine tuning of the evolutionary tree according to shared genetic traits.

Making sense of the data requires more than detecting it. Humans can sometimes harness nearly 30% of the brainpower to process visual data. This new ability to detect, evade, and hunt may have been so important that it may have driven the need for large, connected brains to process the incoming data (Nilsson, 2013). The manner in which eyes evolved, may likewise shed light on the development of the brain.

Many questions regarding eye evolution remain: do multi-part traits form gradually or abruptly? How did they evolve to interface with muscles, neuron nets, or brains in creating vision? How do these developments relate to that of other body systems? Whatever remains to be answered, at least an old evolutionary conundrum has been laid to rest.

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Appendix 1: Lamb's Proposed Sequence of Vertebrate Eye Evolution

(from Lamb TD, Collin SP, Pugh EN (December 2007). "Evolution of the vertebrate eye: opsins, photoreceptors, retina and eye cup". *Nat. Rev. Neurosci.* 2007 Dec; 8 (12): 960–76.

Proposed sequence of events involved in the evolution of the vertebrate eye

Stage 1: bilateral ancestor (>580 million years ago (Mya))

Animals with bilateral symmetry exist.

Numerous families of genes exist.

A range of G-protein-coupled signalling cascades exist.

A primordial opsin has evolved into three major classes: rhabdomeric opsins, photoisomerase-like opsins and ciliary opsins.

A rhabdomeric-type photoreceptor has evolved, using a G_q-based signalling cascade with a rhabdomeric opsin.

A ciliary-type photoreceptor has evolved, using a variant opsin (the stem ciliary opsin) that probably coupled to a G_o-based signalling cascade.

~580 Mya

Protostomes separate from our line (deuterostomes).

Stage 2: protochordates (580-550 Mya)

The ciliary photoreceptor and ciliary opsin continue to evolve, becoming similar to those in extant amphioxus and ascidian larvae.

A primordial RPE65-like isomerase evolves.

These protochordates had ciliary photoreceptors with a ciliary opsin and a hyperpolarizing response, and were able to regenerate 11-cis retinal in darkness.

~550 Mya

Cephalochordates and tunicates separate from our line (chordates).

Stage 3: ancestral craniates (~550-530 Mya)

A ciliary photoreceptor evolves that has well organized outer-segment membranes, an output synapse close to the soma and a synaptic specialization appropriate for graded signal transmission.

Ciliary photoreceptors make synaptic contact onto projection neurons that might have been descendants of rhabdomeric photoreceptors.

The eye-field region of the diencephalon bulges to form lateral 'eye vesicles'.

These lateral vesicles invaginate, bringing the proto-retina into apposition with the proto-retinal pigment epithelium.

A primordial lens placode develops, preventing pigmentation of the overlying skin.

The resulting paired lateral photoreceptive organs would have resembled the ‘eyes’ of extant hagfish, lacking any image-forming apparatus and subserving non-visual functions.

~530 Mya

Myxiniformes (hagfish) separate from our line (vertebrates).

Stage 4: lamprey-like ancestors (~530-500 Mya)

Photoreceptors develop cone-like features:

Highly-ordered sac/disc membranes evolve.

Mitochondria become concentrated within the ellipsoid region of the inner segment1.

Coloured filter material is incorporated into the inner segment for spectral tuning.

Ribbon synapses evolve in the synaptic terminal.

Genome duplications give rise to multiple copies of the phototransduction genes.

Cell classes diverge to give five separate cone-like photoreceptors, each with its own ciliary opsin and with isoforms of transduction proteins.

Retinal computing power increases:

Cone bipolar cells evolve, either from proto-neurons or from photoreceptors.

The bipolar cells insert into the pathway from photoreceptors to ganglion cells, through the retraction of photoreceptor processes and the incorporation of new contacts.

Bi-plexiform ganglion cells develop.

A highly organized three-layered neuronal structure with two intervening plexiform layers develops.

Ganglion-cell axons project to the thalamus.

The optics evolve (the lens, accommodation and eye movement):

The lens placode invaginates and develops to form a lens.

The iris develops and a degree of pupillary constriction becomes possible.

Innervated extra-ocular muscles evolve.

The resulting eye and visual system would have resembled that in extant lampreys and would have provided spatial vision at photopic intensities and over a broad wavelength range.

~500 Mya

Petromyzoniformes (lampreys) separate from our line.

Stage 5: jawless fish (~500-430 Mya)

Myelin evolves and is incorporated throughout the nervous system.

Rod photoreceptors evolve:

Rhodopsin evolves from cone opsin.

Rod isoforms of most transduction cascade proteins arise.

Free-floating discs pinch off within the plasma membrane.

Rod bipolar cells evolve, possibly from rod photoreceptors.

The scotopic rod pathway evolves, with a new subset of amacrine cells (AII) providing input into the pre-existing cone pathway.

A highly contractile iris evolves that can adjust light levels.

Intrinsic eye muscles develop that permit accommodation of the lens.

This eye possessed a duplex retina that contained both rods and cones, together with retinal wiring that closely resembled that of jawed vertebrates, with colour-coded photopic pathways and a dedicated scotopic pathway; it was probably similar to that found in many extant fish.

~430 Mya

The last jawless fish separate from our own line (gnathostomes).

Stage 6: gnathostomes (<430 Mya).

In the case of tetrapods:

The lens develops an elliptical shape to compensate for the added refractive power that is provided by the cornea in air.

The dermal component of the split cornea is lost and the eyelids evolve.

Certain opsin classes are lost, for example, SWS2 and Rh2 in mammals, under extended nocturnal conditions.

Appendix 2: Illustrations and Charts

**THE FOLLOWING ILLUSTRATIONS WERE ORGANIZED VIA MAC PAGES PROGRAM AND
MAY NOT HAVE TRANSFERRED WHEN SWITCHED TO MICROSOFT WORD. PLEASE
LET ME KNOW IF THERE IS A PROBLEM carolynjew@icloud.com**

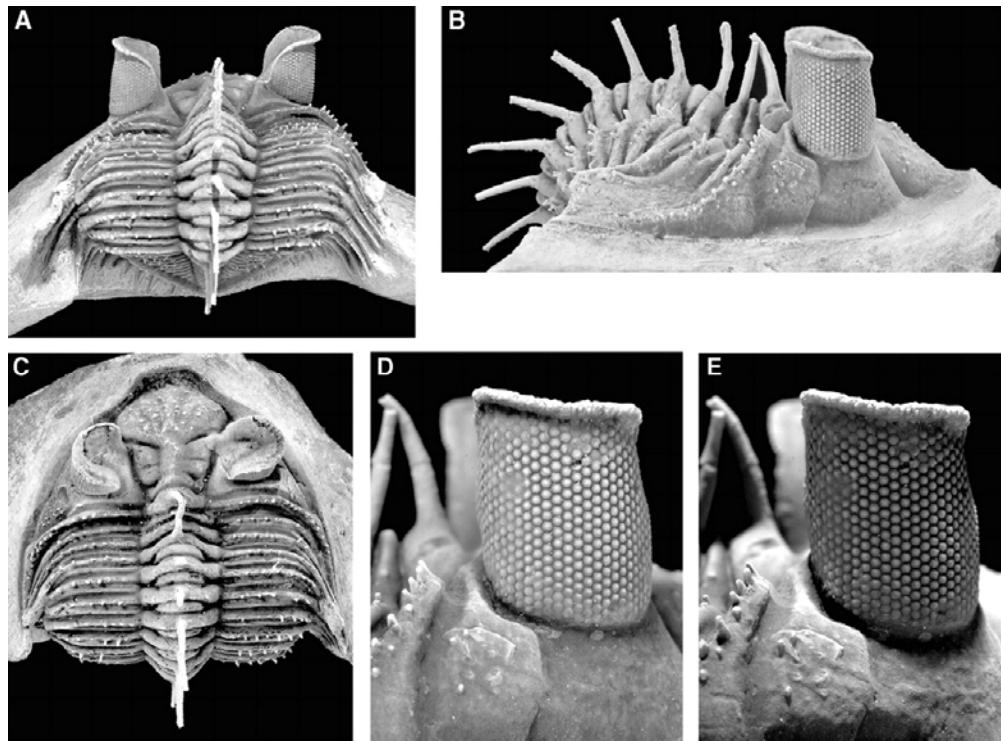


Exhibit 1: Fossilized Trilobite Eyes (Fortey and Chatterton, 2003)

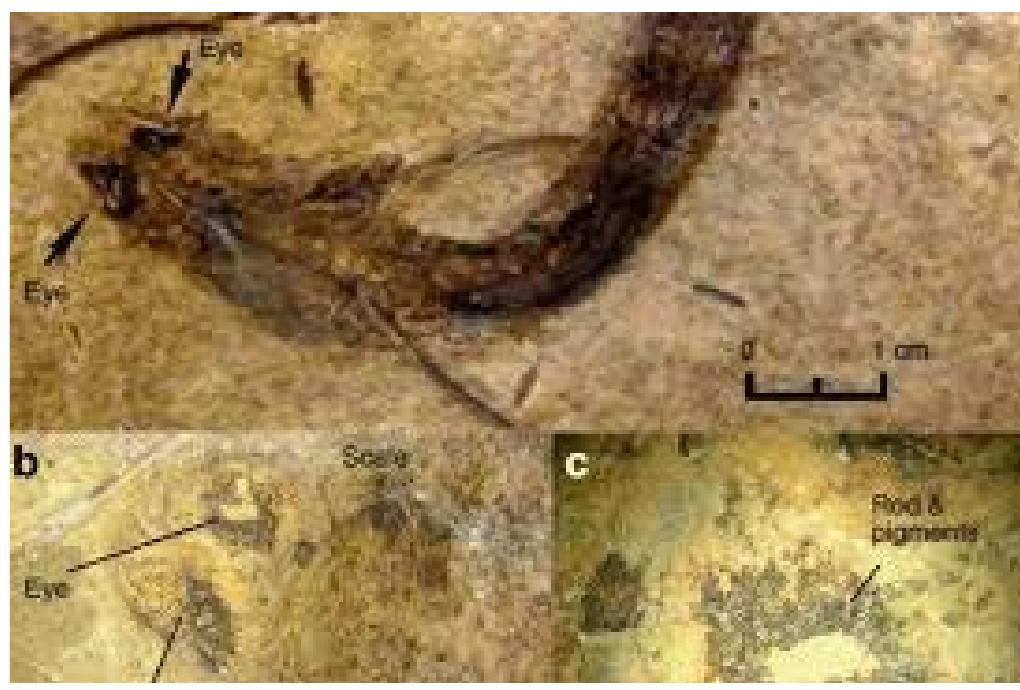


Exhibit 2: Rods and Cones Present in Fossilized Fish (photo: Nature)

2017 Beacon Proceedings

3. 3D Reconstruction of Gnathosome Optical Orbit, Illustrating Fissures and Canals for Muscles and Nerves (Young, Lee)

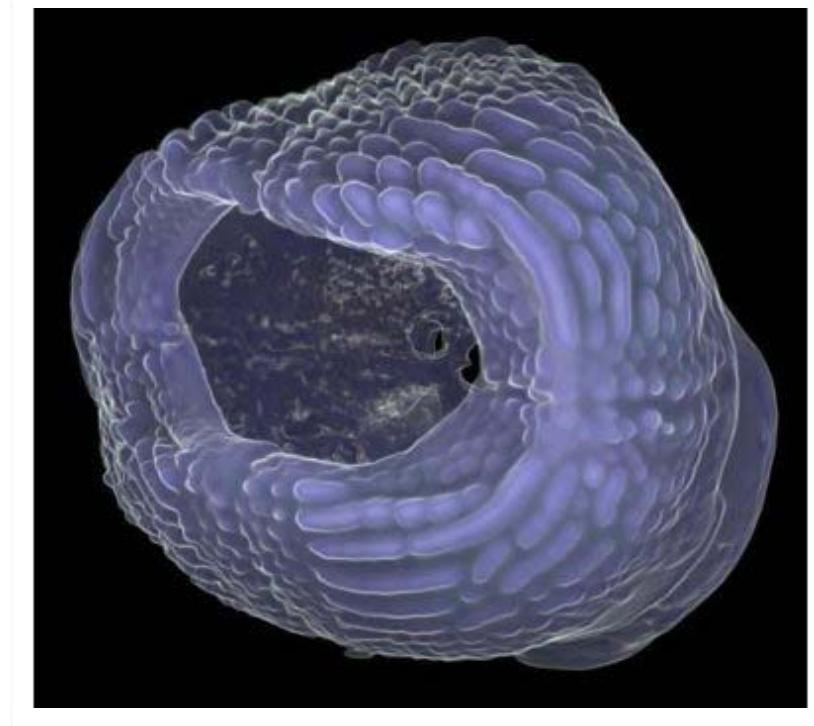


Exhibit 4: Chart of Vertebrate Eye Evolution (Lamb, 2007)

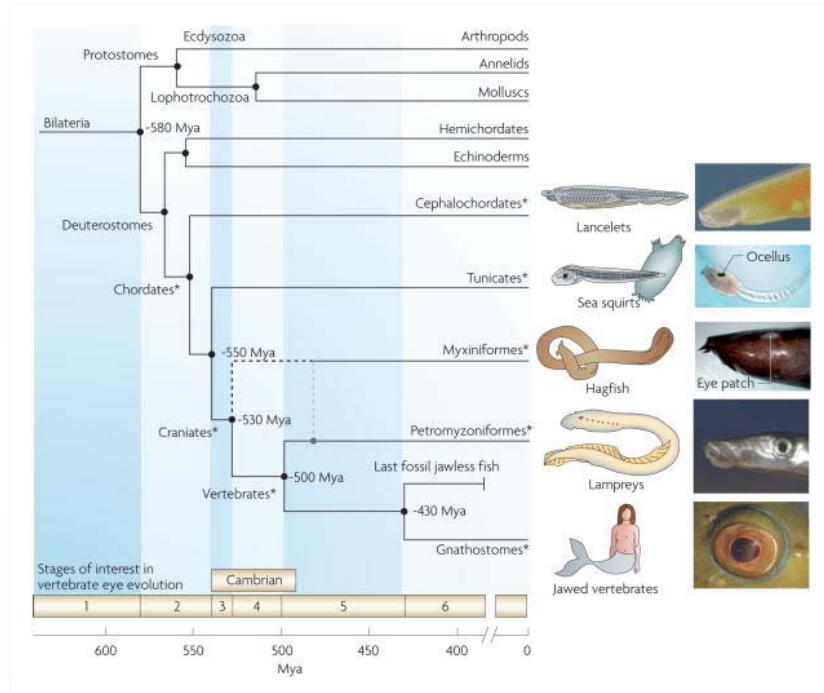


Exhibit 5: Stages of Eye Complexity in Mollusks (Nilsson, 1994, 2013)

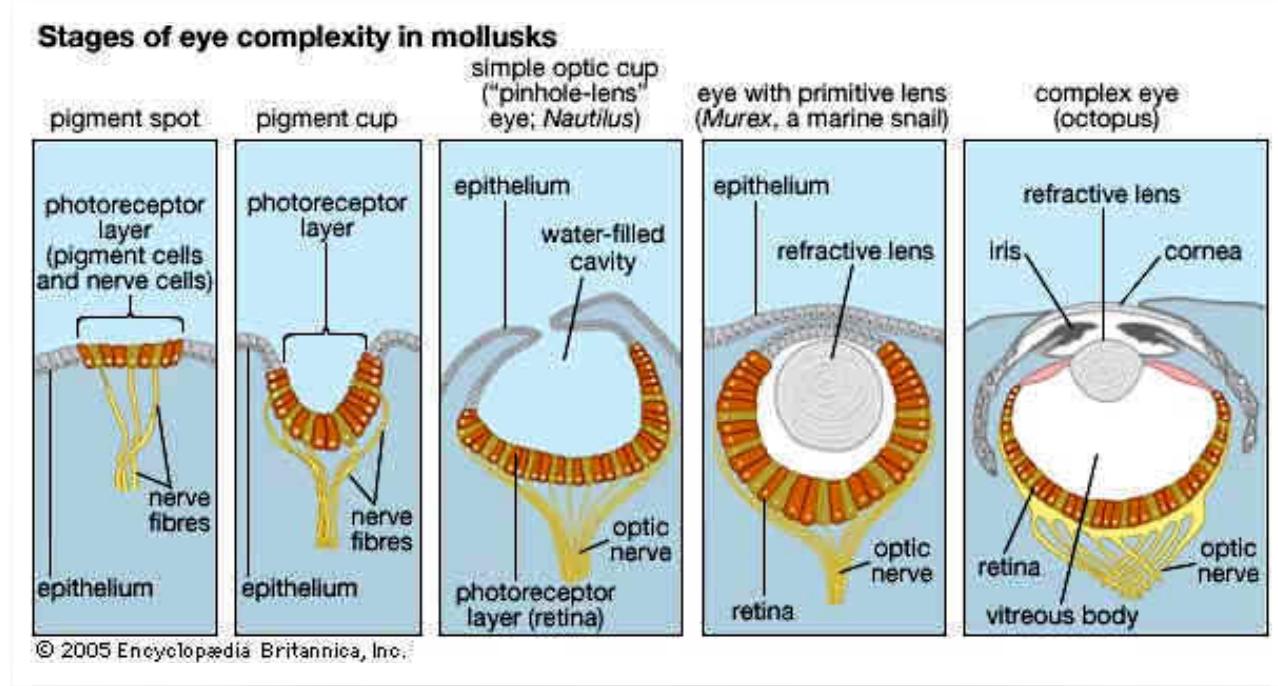


Exhibit 6: Chart of gene fragments of eye structures (Lamb, 2007)

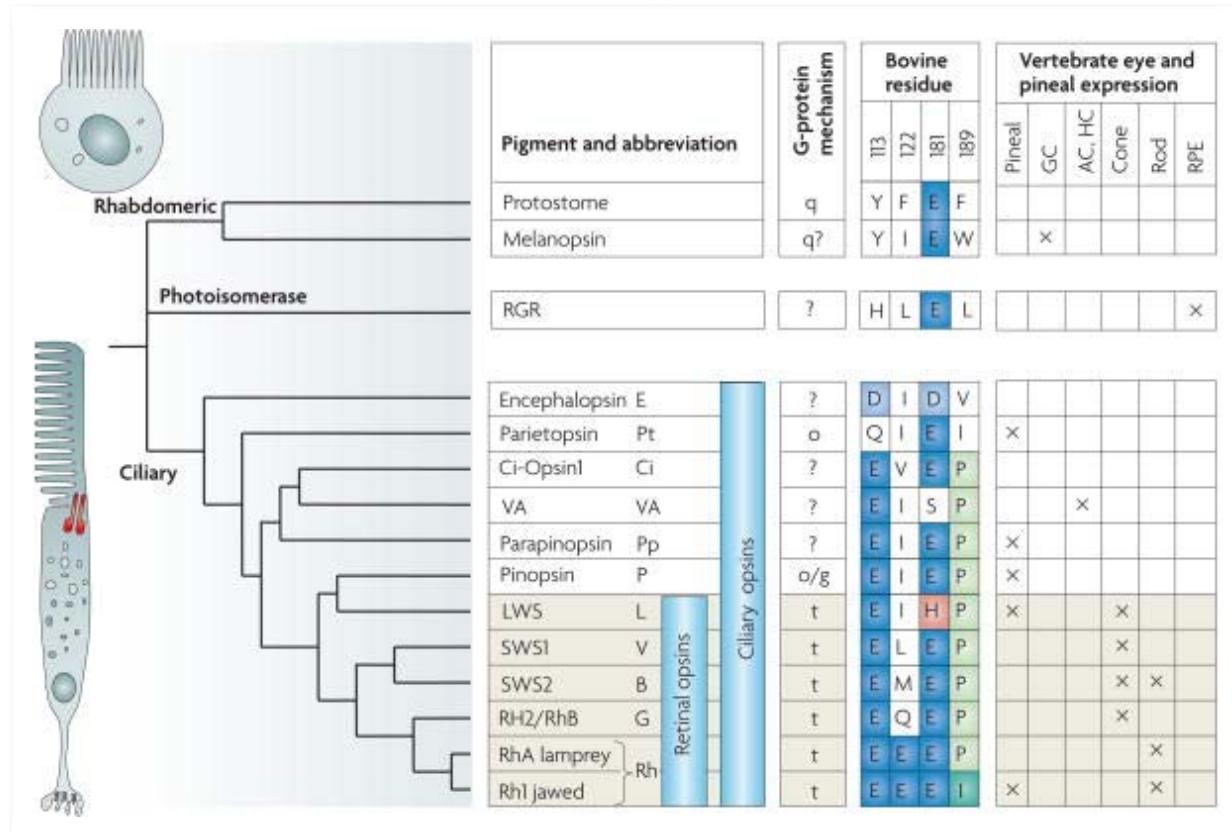
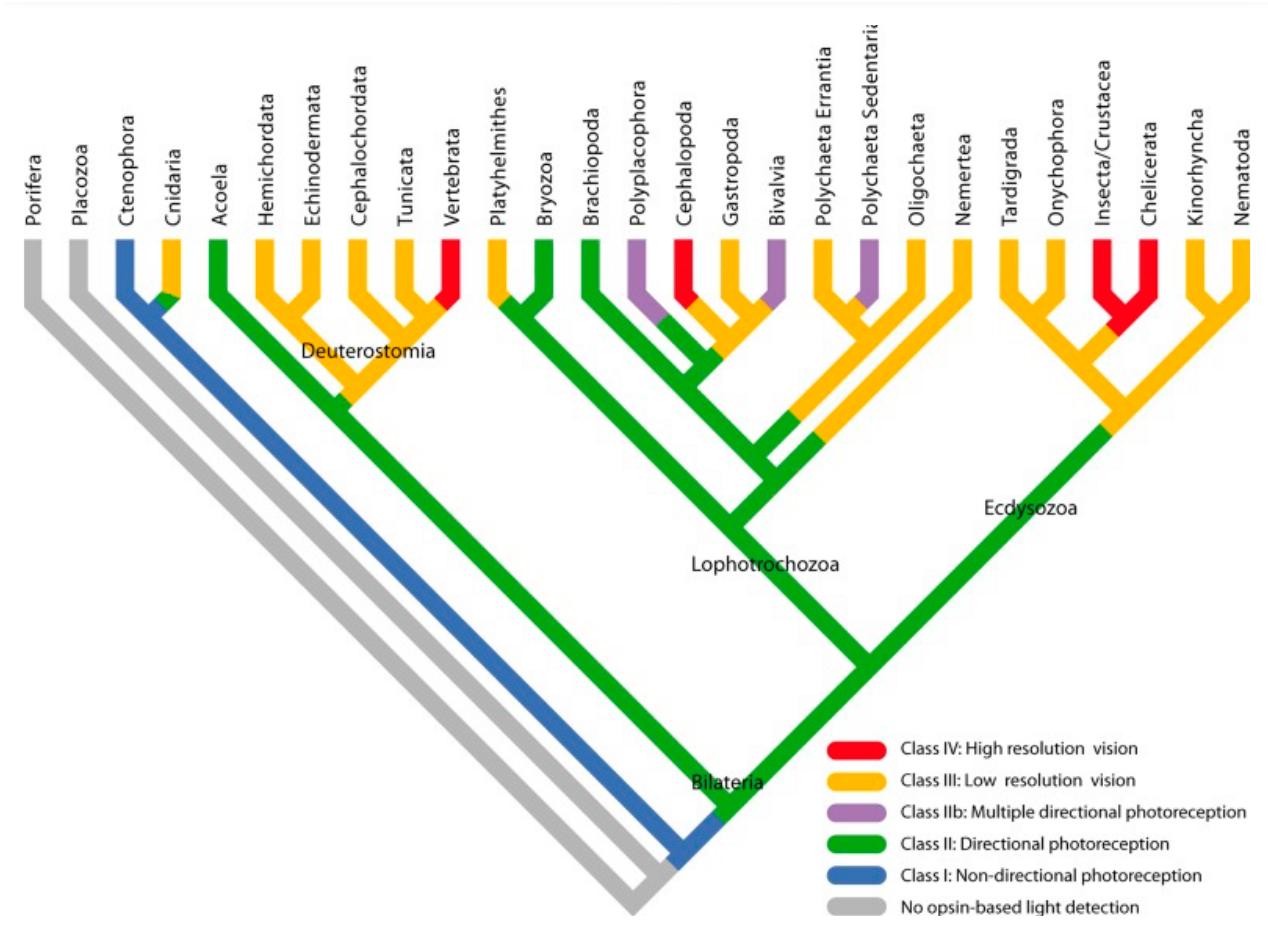


Exhibit 7: Tree of Life, Arranged by Structures Within Eye (Vopalensky, 2009 Philosophical Transaction of the Royal Society B)



Valerie Mackey

Identity through Discourse: Blending Opinion Commentary into “Hard News” Can Shape an Audience’s Worldview

Reading Area Community College

Panel: Communications and Media Studies

Mentor: Dr. C. L. Costello

Identity through Discourse

Blending opinion commentary into “hard news” can shape an audience’s worldview

In any discussion about how corporate or political agendas might control a nation’s discourse, the United States’ strong stance as a bastion of a free press has historically been a reassuring one. For many years, television news shows purported to hew to the same standards of non-partisan objectivity that characterized print media, whereby certain outlets may have "skewed" towards a more conservative viewpoint, while others took a more Liberal tack, but the "news" was considered the reporting of fact.

Unfortunately, within the past few months a sea-change has occurred in American society, where the new Executive branch has chosen to label and treat much of the mainstream media as "the enemy of the American people" (Trump, 2017). Official press releases, tweets and Presidential surrogates have insisted that certain news outlets (specifically, those with articles unflattering to the President, his appointees or the current White House administration) are in fact purveyors of "fake news."

This de-legitimization of mainstream media outlets, although taken to an extreme by the current administration, is an unfortunate (and possibly foreseeable) progression of how media has changed over the past decades. As Feldman (2011) points out in “Partisan Differences in Opinionated News Perceptions”, the creation in recent years of

cable news channels, whereby objective reporting is melded into opinion and personal commentary, has given rise to news reporting that is “characterized by the explicit expression of political views” (p. 408).

Given the twenty-four-hour news broadcast channels’ need for content to provide an entire day of “news” broadcasting, the effect of opinion on reporting is being greatly amplified by the commentary groups, opinion panels, and political punditry necessary to fill up the full news cycle. Even prior to the current administration’s attacks on the media, the increase of “opinion” news had resulted in accusations of bias within cable news networks such as Fox News Channel (“FNC”), CNN, and MSNBC. Indeed, as Feldman (2011) notes, a study found that 52 percent of all cable news stories on CNN, FNC, or MSNBC offered only a single point of view of controversial issues (p. 408).

According to an article by Jesse Holcomb (2014), Associate Director of Research at the Pew Research Center, the Fox News Channel audience “skews more ideological than that of its two main competitors,” MSNBC and CNN. As Holcomb reports, in a 2012 survey conducted by the Pew Research Center, Fox News viewers can be broken down into categories, 60 percent describing themselves as conservative, 23 percent moderate and 10 percent as liberal; contrasting significantly with CNN’s breakdown of 32 percent conservative, 30 percent moderate and 30 percent liberal, and MSNBC’s viewers, categorized as 32 percent conservative, 23 percent moderate and 36 percent liberal (Holcomb, 2014).

Given Fox News viewership's self-described conservative slant, several FNC opinion commentary shows, over the course of several weeks during the summer of 2016, were studied in order to ascertain whether biased language was employed to create or enhance this ideological bias. Fox News shows were observed to display a strongly conservative viewpoint, with an emphasis on employing fear language mixed with flag-waving nationalism, xenophobia, and conspiracy theories purportedly aimed at the conservative way of life.

Particular attention was paid to coverage of recent mass shootings of civilians in Orlando, and of police officers in Dallas, specifically within the context of *The Kelly File*, *Hannity* and *The O'Reilly Factor* news commentary shows. Programming that employed specific rhetorical patterns and language choices supporting an agenda, providing a community identity, and fostering clear attitudes within its viewership were observed within these shows, demonstrating that the FNC discourse is creating and nurturing a community that self-identifies as "real Americans" (i.e. conservatives) with a strong bias against any perceived foreign or domestic "attacks" against such Americans.

Fox News Channel debuted in 1996, a creation of Rupert Murdoch, Australia media mogul. According to a CNN report by Laura Smith Spark (2012) on his power and political influence, Murdoch is the owner of the largest media conglomerate in the world, News Corp, controlling 37 percent of British national newspaper circulation and over 60 percent of the Australian market, but has frequently exerted political influence in elections through his media empire. (In England, Murdoch was called before the 2012

judicial Levenson Inquiry to “explain how his influence has shaped Britain’s media and political landscape”) (Spark-Smith, 2012).

In fact, Murdoch’s use of his media holdings to push a political agenda is long-standing. Colin Morrison (2011) details Murdoch’s early propensity for using his media empire to influence politics and for business gain, and related how the first issue of Murdoch’s new national newspaper, *The Australian*, ran an editorial campaign in 1964 on behalf of Murdoch’s friend and political ally John McEwen, leader of the right-wing Country Party (Morrison, 2011).

According to Williams Myers (1988), who asserts that Murdoch “uses his papers to promote his views and his favorite candidates,” once John McEwen retired, Murdoch switched allegiance to the Labor party and used newspaper editorials and stories in his newspapers to influence the election of the Labor Party candidate, Edward Gough Whitlam, as Australian Prime Minister. But by the 1975 general election, Murdoch had turned against Whitlam, and filled so many news columns and editorials with anti-Whitlam vitriol that his reporters and editors issued a public statement decrying the “very deliberate and blatant bias in the presentation of the news.” However, Murdoch persisted, and Whitlam was roundly defeated (p.18).

During the 1980s, Murdoch’s global news empire, News Corp. expanded from the Australian and English arena to include major holdings in American communications, and Murdoch moved into the multi-media market with his creation of Fox Inc. and the Fox Channel in America in 1986 (Morrison, 2011). Turning his attention

to the new 24-hour news channels, Murdoch believed that "the appetite for news – particularly news that explains to people how it affects them – is expanding enormously," and he launched Fox News as a news and "political commentary" channel, with the slogan "Fair and Balanced" (History of Fox News, n.d.). Considering the background of the man chosen to lead the fledgling channel, Roger Ailes (a former media consultant to Richard Nixon, Ronald Reagan, George H.W. Bush and Rudy Giuliani), it would appear that Murdoch intended to "explain" news to his viewers through a conservative Republican lens.

Jennifer Cunningham (2004) talked with co-producer Jim Gilliam about the Fox News Channel's partisan slant, in her article discussing filmmaker Robert Greenwald's 2004 documentary, *Outfoxed: Rupert Murdoch's War On Journalism*. Gilliam related how the FNC broadcast footage and leaked memos, as well as interviews with former Fox contributors and staff, certainly seemed to demonstrate Fox News Channel's propensity to promote specific agendas, and talked about how evident that agenda appeared during the war in Iraq. "During the four months we worked on Outfoxed, we saw how critical the media's role was"...."specifically, the role Fox News played in demonizing opposing viewpoints," said Gilliam (Cunningham, 2004, p. 18)

To determine whether or how Fox News Channel's opinion commentary shows create an agenda-driven discourse community, the linguistic patterns and word usage in *The Kelly File* (hosted by Megyn Kelly), were studied closely. Two other opinion news-hour shows were included in the study, *Hannity* and *The O'Reilly Factor*, to verify

whether the language viewed in *The Kelly File* episodes was particular to Megyn Kelly's show or part of a greater Fox News Channel community. An hour-long "special" that Megyn Kelly hosted, "Terrorism in America," was particularly helpful in exploring the linguistic choices and patterns that appear to shape and create a worldview for Fox News Channel's viewers.

The approach used to examine these language patterns and terms was to identify and categorize those words and phrases being used as "Ultimate Terms" by participants on the show. *Ultimate Terms* are rhetorical words or phrases described in Richard Weaver's 1953 book, *The Ethics of Rhetoric*, as dominating words that reveal the lesser degree of force of other terms, making them the ultimate generators of force. Weaver separates these terms into three categories: "god-terms" (dominant positive words), "devil-terms" (dominant negative terms), and "charismatic terms," terms with no referential connection but with an intrinsic value, i.e. freedom, democracy (pp. 212-232).

In Weaver's view, a god-term for the decade in which he was writing (i.e. 1950s), was the word "progress."¹ As Weaver points out, human social groups employ to promote a specific way of thinking about the world, and identifying their place in it. Communities self-described as progressive in the 1950s were assigning themselves an

¹ Weaver argued that in the 1950s the term progress could enhance or validate almost anything else, using as examples communities that happily pronounced themselves progressive or politicians who were proud to call themselves progressive. "Fact" was another term that Weaver felt had great rhetorical value, a word that came to mean "the kind of knowledge to which all other knowledges must defer" (p. 215). We see similar words in today's society: "organic" has become a god-term whereby its opposite by definition must be bad. Genetically-modified food? It *must* be unhealthy, it's not "organic."

identity, the very word summoning up a worldview of forward-thinking movers and shakers.

Devil-terms similarly possess this power, as Weaver points out, but towards negation or repulsion: for instance, in 1950's United States, the phrase *Un-American* had become an ultimate term of negation. Weaver uses the examples of the terms *Nazi* and *Fascist*: during World War II, those words carried equal condemnatory weight, but in the 1950s and again during the Reagan era in the 1980s, *Communist* became the ultimate devil-term (pp. 219-223).

In today's society, the word terrorist has evolved into a modern devil-term. Ragusea's (2016) article, "Terrorist Is Now a Biased Word," relates how the term *terrorist* was in common usage far more broadly in prior years, used to describe such disparate characters as Irish Republican Army (IRA) guerrilla fighters or American Jewish radicals. Ragusea notes that usage of the word has changed dramatically in today's society; terrorist has become synonymous with the phrase Islamic Jihadist, taking on such an aspect of anti-Islam discrimination that journalists should no longer use it (Ragusea, 2016).

When the massacre in Orlando occurred at Pulse Nightclub, President Obama noted in his press conference that the shooting was an "act of terror." According to an article on *BusinessInsider.com*, the president's phrase was quickly condemned by the Republican nominee for President, Donald J. Trump, who castigated President Obama

for not using the phrase “radical Islamic terrorism.” Trump went so far as to tweet that President Obama should “immediately resign in disgrace” (Engler, 2016).

However, Weinstein’s (2016) article “Why President Obama Was Right Not to Say Radical Islamic Terrorism,” points out that the phrase “radical Islamic terrorism” implies only *radical* Islamists are terrorists, but that unfortunately such nuances are generally ignored by many Americans. It seems probable that the constant use of inflammatory rhetorical terms, such as conjoining Islam to terrorist, have given rise to anti-Islamic sentiment. Given that crimes against American Muslims have tripled in recent years, it seems clear that until most Americans can distinguish between the radical factions of a religion and the peaceful majority of its believers, public figures should abstain from conjoining words contributing to prejudice (Weinstein, 2016).

However, at Fox News Channel such rhetorical terms are considered a crucial part of the discourse. Cirilli (2013) noted in his *Politico.com* article (discussing an episode of *The O'Reilly Factor*) that Fox News contributor Charles Krauthammer said it was “comical and certainly embarrassing” that President Obama would not use words such as “jihadist” and “Islamist” to describe the Boston Marathon bombers. Krauthammer insisted that the President “refuses to use any words that might imply a connection between radical Islam and terrorism” (Cirilli, 2013).

In studying *The Kelly File* episodes, and particularly the Megyn Kelly special, “Terror in America,” the terms *radical*, *Islamist*, *Jihadism/Jihadist* are in constant use as ultimate terms, conjoined with such other terms of negation: *soft targets*, *terror*

teachings, extremist, radicalized Muslim, pledging allegiance, terror attack, corrupted, “demonize, Islamic State. The words *terror* and *radicalized* are two of the most frequently-employed conjoined words, as they give the adjunct term the power that FNC seeks to evoke (i.e., War on Terror). With the implicit subtext that the word terrorist has come to mean Muslim/non-white, Fox News Channel appears to be deliberately stoking prejudice against entire sub-sections of American society.

Some of these terms are employed to conjure up images with which the discourse community can identify. The phrase Soft target conjures up an image of an attack on the extremely vulnerable, perhaps children or the elderly, images that can evoke strong protective instincts in humans. However, according to Stratfor (a company that “provides global awareness and guidance to individuals, governments and businesses around the world”), soft targets actually refers to nightclub, restaurants, malls and schools – places where few if any defensive measures against violence might exist. As Stewart points out in Stratfor’s June 2016 online Security Briefing, terrorists are generally far militarily weaker than their opponents and therefore cannot strike well-fortified targets. Where once a terrorist might have targeted an embassy, they are now forced (by the strength of their opponents) to target hotels or restaurants instead (Stewart, 2016). This sub-text of weak terrorists having to attack strong opponents’ soft targets feeds the narrative of jingoistic nationalism that underlies much of the FNC discourse.

War is used in a similar fashion, although without the religious undertones. However, in employing a word with such strong violent undertones and conjoining it with any cause that might evoke anxiety within its demographic (“the War on Christmas,” “War on Christianity,” “War on Coal”), Fox News appears to be stoking a constant state of anxiety and fear within their discourse community.

In a similar fashion to how the phrase *soft target* can reinforce the “weak terrorists” versus “strong opponents” concept, by persistently using the phrase “War on ...” to describe any potential disagreement Fox News Channel perceives within society, FNC is *defining* the essence of the discourse community. FNC viewers are clearly the “good guys,” if they are defending a beloved religious event from those who would wage war on it. The phrase “War on Coal” evokes images of coal-miners, trudging up from toiling in the depths of a mine, beset by attackers determined to destroy their way of life. Without the necessity for nuanced discussion of the benefits or disadvantages of coal as an energy source, the simple employment of the phrase War on Coal codifies the implicit “goodness” of the coal miners and their work, and the obvious “evil” of those trying to destroy that way of life.

In truth, there is little room for nuance in Fox News Channel language. The usage of “God terms”—*Conservative, American, rights, security, safety, strengthen*—and some common “charismatic terms” (namely *freedom* and *democracy*), were far fewer than the myriad devil-terms employed. While the god-terms employed reinforce the identity of the FNC discourse community (older, fearful, white Christian viewers), the

plethora of devil-terms reinforces what appears to be a specifically-designed agenda of fear, and certainly heightens the anxiety of those involved in the discourse.

Berg (2010), in his dissertation *The Fear of Terrorist Attacks in the Southwestern United States*, suggests that news media is “complicit in spreading collective fear,” and that that fear is an essential factor in creating a discourse community that is more easily influenced (pp. 5, 32). In Berg’s analysis, he discusses how a fear-narrative can be a mechanism to unite people against a common threat, and how “security” and “safety” are the subtext to fear-laden rhetoric. He illustrates his statement by pointing out the nationwide American patriotism that was displayed after the terror attack on September 11, 2001, as an example of fear’s transformative nature (p. 32).

Berg’s studies show that several factors appear to be related to a heightened fear of terrorist attacks, including the amount of news media that people consumed, possessing a conservative social identity and white heritage, and being Protestant Christian or Agnostic (p. 160). What’s interesting is that Fox News Channel’s demographic is overwhelmingly white, conservative, Protestant Christians. Jason Easley’s article, discussing how the FNC’s demographic is essentially dying out, reports that the average Fox News Channel’s prime-time viewer is a sixty-eight year old, white conservative Republican. Nielsen Ratings data puts the prime-time viewership of Fox News Channel at only 1.1 percent black, a very low percentage given that MSNBC’s viewership is 25 percent black and CNN has a 14 percent black audience. Essentially

the Fox News Channel is “a retirement home/echo chamber for old white conservatives” (Easley, 2015).

Research of the two other FNC shows studied reveals similar (often identical) language in use. Fear-mongering hyperbole on Sean Hannity’s show *Hannity* is applied fervently. Words like *sniper*”, *hijack a conversation*, *chilling*, *devastating*, *deadly*, *atrocities*, *bombshell*, *attack politics*, and *conspiracy* are in frequent use, despite the implicit nuance of such terms. “We need to be scared”, “us or them”, and “treason” are commonly included as part of the narrative. This use of terror language, even when employed in regular opinion panels, discussions of non-terror related events, or when reporting news items, reinforces the underlying narrative of fear found throughout the FNC programming.

However, some of the terms used (i.e. “hijack a conversation”) go beyond the amplification of a fear narrative, and move into a realm of accusation. Such a term implies that the conversation *belongs* to the Fox News Channel: that the FNC discourse community is the correct and righteous owner of the conversation and those that might hijack such discourse are in fact engaging in an act of terror. “Attack politics” is similarly employed, with a sub-text equating politics with conservative, under attack from those who would destroy it (i.e. liberals).

The conspiratorial language frequently used (“intentionally misled”, “rigged”), helps provide a feeling of inclusion for the viewers – they’re “clued-in”, they’re the only ones really “in the know”. It gives the discourse community the impression that while

others are listening to biased reporting on other channels, the Fox News viewers are being given the real *facts*. The language of fear also helps maintain a high level of anxiety about the state of the world within the FNC community, and further reinforces the “us versus them” attitudes evidenced – further reinforcing the discourse community’s identity. One benefit to employing conspiracy language is that little explanation or discussion of a subject need follow, if a conspiracy is identified at the core of an issue. As Hollander (1999) explains, “the major appeal of conspiracy theories is that they simplify the world...while providing emotionally satisfactory identifications and explanations of evil”.

The emphasis on the Fox News Channels shows appears to confine usage of the devil-terms *only* to those aggressors that FNC determines warrant such treatment – and those aggressors appear to be Muslim and/or non-white in the vast majority of cases. For instance, coverage on The Kelly File, Hannity or The O'Reilly Factor regarding the mass shooting in Pulse Nightclub in Orlando reiterated the terms “terrorist”, terror attack”, “radicalized Islamic terrorist” and “Islamic extremist”, since the attacker was identified as Muslim. Again, the Fox News coverage of the shooting of police officers in Dallas immediately categorized the shooting as a “terror ambush”, “terror attack”, and a “War on Cops” (despite the fact that in the Dallas shootings, the gunman was neither Muslim nor a radicalized extremist, but a black American veteran).

This identification of certain people using these specific devil-terms appears to bolster the FNC agenda: to distinguish “good” from “evil” by identifying threats to

“America” for their viewers. By categorizing “evil” as non-white and/or Muslim, particularly given Fox News Channel’s demographic of older white Christians, FNC is validating the identity of its discourse community. To the Fox Nation, when the “bad guys” are non-white/Muslims killing Americans, the converse must be that the “good guys” are the white Christian Americans.

As Rupert Murdoch once explained, he created Fox News Channel so that he could explain news to people in a way that makes it clear how viewers are affected by that news (History of Fox News, n.d.). Whether these effects are fantasy or fact, clearly Fox News hosts believe that only their carefully-scripted linguistic choices can aid their viewership understand what they are watching.

What is clear in studying FNC programming is that Fox News shows are “explaining” the news within a very specific narrative to help their audience identify the good guys (Republicans, Conservatives, “people like us”), versus the bad guys (the terrorists, the haters, the “enemy”). Whether by nature this white, conservative, protestant demographic, already fearful of terrorism and anxiety-ridden, is naturally drawn to Fox News Channel’s programming; or whether FNC is deliberately shaping the narrative and discourse among their community in order to influence societal opinion; or if Fox News Channel is simply tailoring programming towards a fear-narrative to encourage heightened news consumption, are questions that belong to a more in-depth study. One possible agenda does present itself - after all, to the members of the “Fox

Nation", if things are this bad (given the political structure in place *right now*), clearly the action to take is changing that political structure.

What is interesting is that since the recent election, a great deal has altered within the print and television news media world. In the space of only a few weeks, the American public has been introduced to the President of the United States publicly denouncing mainstream media outlets and journalists as "disgusting and corrupt media," "the opposition party," and "very dishonest people." Even the integrity of actual fact (given White House adviser KellyAnne Conway's recent description of assertions by the White House press secretary as being "alternative facts") appear to be in question by the current Executive branch. It is difficult to predict where this sudden evolution from political bias within news media to the political de-legitimization of the press may end up, but as the media strives to prove their legitimacy in the face of attack, it may well become a saving grace for the integrity of journalism.

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Ashley Beck de Muñoz

Educating Girls to Eradicate Extreme Poverty

Reading Area Community College

Panel: Education

Mentor: Professor J. Daniel Glass

Abstract

A large portion of the world's girls are not afforded even the most basic education. Obstacles such as poverty, tradition, and armed conflict keep girls ignorant and powerless to change or control their future. In addition, when aid money is focused on educating girls and allowing them to raise their own standard of living rather than on temporary handouts, these girls' situations not only change, but the girls themselves change. Currently, most foreign aid is designated to temporary solutions such as shelter, food, and medicine. However, considering that the long-term effects of educating girls are incalculable, and include improved health and economic growth for entire nations, more attention and funding must be focused on tapping this unused resource. Increased funding of education allows study and careful removal of the obstacles currently facing today's girls of the world. It is clear to see that increased funding of education for girls in the developing world is the only way to raise the status of girls from beneficiaries to citizens of the world who increase the economic status of their country.

Educating Girls to Eradicate Extreme Poverty

In the United States of America, the right to an education, the right of the individual to think for herself, and the right to become whomever she wants to be is something that is too often taken for granted since many women of the world do not enjoy these rights. Too many females are held back, held down, and oppressed. Those who dare to dream for more are quickly brought back into line by their harsh cultural and political realities. One woman whose experiences demonstrate this clearly is Malala Yousafzai, a human rights activist who was shot in the head by the Taliban after publicly speaking out for education rights for girls (Yousafzai & Lamb, 2013). Even this extreme personal violence has not silenced her voice. Her dream of an education, not only for herself, but for all girls of the world, has driven her to continue to demand that the world recognize these girls, their dreams, and their potential. Her recently created charity, Malala Fund, invests in local education programs and advocates for more resources in safe schools. Because uneducated women often do not have the resources to demand something more for themselves or their daughters, others must do it for them. The Malala Fund understands the calamity of the lost hopes of millions of girls, and envisions a world full of educated women combating poverty and war. Thus, by supporting the Malala Fund, individuals can speak out for a better tomorrow.

Parents of the world depend on schools to provide their children with a safe environment for learning. Teaching children to respect one another and transmitting the cultural values of the area are crucial to maintaining a community's identity. The value of the socialization that occurs in schools worldwide cannot be overstated. Children are

taught self-discipline, positive response to competition, and productive ways to deal with failure. Many schools also serve as community centers offering afterhours opportunities for adults such as literacy classes and counseling. As gathering places, schools frequently provide a neutral space for group decisions to be made on a small-town level. Organized education provides a distinct advantage to every community that has access to it, while communities deprived of this fundamental human right are crippled socially and economically.

Some parts of the world do not experience these crippling effects; for example, every fall, millions of households in America participate in going back to school. There are weeks of preparation where parents buy new school supplies. There is the obligatory first day picture while waiting for the bus that embodies the hope of learning, growth, and social development. This ritual, however, is not nearly so happy in other parts of the world. While parents in developing countries also dream of growth and a future for their family, they face daunting obstacles in educating their children.

These obstacles are many and varied, but by far, the largest is poverty. Primary education in many countries is not free. Even when schools do not charge for their services, parents often are responsible to provide uniforms, books, and other supplies. Families work long hours and sacrifice to send their children to school. When all of this is not enough, they must choose which of their children to educate based on who will benefit most from their studies and who is the most likely to lift the family out of poverty. Often, they choose boys. The girls are then left to work at home preparing the meals and ironing their brothers' school uniforms. In cases of even more extreme poverty, these girls are sent to work the fields or sold as child brides. Even the families who

initially send all their children to school soon find the burden too much to bear as evidenced by the 116 million young women aged 15-24, who did not finish their primary education (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2013b).

One simple way to make a difference in attendance is to feed students. Dr. Jim Yong Kim, World Bank Group President, and Ertharin Cousin, Executive Director of the World Food Programme, say that their research shows how school meal programs help get children into the classroom and keep them there (as cited in World Food Programme, 2016). In 2012, schools with feeding programs had twice the attendance rates for girls as schools without these programs (Mercier, 2015). These programs relieve the families of the struggle of feeding mouths that are not immediately contributing to the family's finances. Also, knowing that their children are receiving at least one nourishing meal a day lessens the pressure on the family's food budget, freeing up funds for school supplies. These programs allow parents to imagine a future where all their children become active, involved citizens of the community working together to solve the roots of their poverty.

Many impoverished families rely on the participation of every available set of hands to survive. Since modern household appliances are not common in these homes, girls as young as five are often responsible for backbreaking housework, including hauling water for miles, gathering firewood, caring for their younger siblings, and preparing meals. An extreme illustration of this is found in Somalia, where preteen girls can spend up to 26 hours a week on household chores (Mullins, n.d.). It is not surprising, then, that up to 96% of these girls are not enrolled in school (Somalia

Education Policy and Data Center, 2014). This contrasts with America where minors' rights to education are protected by limiting the hours they can legally work. Most states allow a maximum of eighteen hours during a school week for children aged fourteen or over, while children under this cut off age are not allowed to work at all, assuring them sufficient time to dedicate to their studies and personal development (The School District of Philadelphia, n.d.). To combat the problem of children risking their future in order to earn money for the present, many governments have been encouraged to provide cash incentives for education to their most impoverished citizens. These incentives reimburse the family financially for time spent away from home duties. This has proven effective in Malawi through the Zomba Cash Transfer Project. Girls whose families received the equivalent of \$15 a month had a significant improvement in attendance as well as a 60% decrease in HIV infection rates (Lang, 2015). India also has found that cash incentives make parents more willing to delay marriage for their daughters. These cash incentives allow families to send their girls to school without having to provide the money for uniforms, supplies, or transportation fees. By reimbursing labor wages the girls might bring into the family, they improve gender equality (United Nations Population Fund, [UNFPA], 2016). This means that girls who were once working outside the home to fund their brothers' education now have the chance to study and improve their own futures (Prescott, 2015).

Because the governments of many developing nations are unable or unwilling to accommodate girls in their country, this is an area where compassionate citizens of the world and charitable organizations can really make a difference. By providing donations to groups that focus on granting scholarships to girls whose families could not otherwise

afford to send them to school, the future of individual girls along with their families and communities can be radically changed. Rather than being satisfied with the slow improvements of developing nations' current literacy rates, American citizens can refuse to stand by while millions of girls are condemned to a future of dependency and oppression. Each girl, when given the opportunity to learn, becomes a beacon, shedding light on hundreds of other girls like herself who can be given the tools and confidence to pull herself and her children out of poverty.

While poverty is the largest obstacle to educate girls worldwide, the cultural factors of deep-rooted tradition also holds back many female students. Men and women's responsibilities are clearly delineated in most of the developing world. Considered liabilities instead of assets, girls are expected to leave their families, marry young, and honor their husbands by raising many children. Boys are considered more valuable because they carry on the family name and will care for their parents in old age. Very few people lead lives outside this prescribed pattern; thus, this tradition endures (Kisaka, 2015). Ziauddin Yousafzai, a United Nations Special Advisor on Global Education shockingly says, "They were just waiting to be married," to show that many families consider early marriage for their girls a foregone conclusion, and they do not see how anything else could be beneficial (as cited in Yousafzai & Lamb, 2013).

Shirley Burchfield, director of the Girls' and Women's Education Initiative at World Education says, "They don't know that their daughters can learn in school about nutrition, or treating malaria, or how to be good mothers - it might never have occurred to them, (as cited in Useem, 2001), to counter this ideology. Fortunately, when these girls are given charitable scholarships, parents reconsider their perspectives. Moreover,

when outsiders see girls as valuable resources, suddenly education becomes recognized as an investment to parents instead of a waste. In addition, when girls are given a hand up by caring individuals through sponsorship or scholarships, they themselves become advocates for education of girls in their community.

Beyond the social and psychological benefits of educating girls, the physical health benefits that accompany increased education are substantial. Because girls who receive higher levels of education marry later, they are less likely to have children before their eighteenth birthday. By adding education to maturity, women are more likely to get prenatal care and are more likely to give birth with the help of a midwife or skilled birth attendant, improving outcomes for both mother and child (UNESCO, 2014). Over 50% more girls in Africa and Asia would wait to have their first child until they were eighteen if they had a secondary education. Waiting for adulthood to reproduce generally makes for less children per family increasing the funds available for each child. The increased nutrition knowledge that accompanies general education means healthier children as mothers make better food choices for themselves during pregnancy and for their children's diets afterwards. If the world decided to provide the twelve years of basic education to all girls like Malala Yousafzai demands, twelve million children could be saved from stunting malnutrition. When girls are educated, they become women who understand their options and the consequences to their decisions. These women take better care of their children, are more likely to vaccinate, use mosquito nets, and seek medical attention quicker than their uneducated counterparts. One additional year of education makes a significant difference in a mother's ability to prevent and successfully treat pneumonia or diarrhea, two of the three largest threats to

children's lives in the developing world. Per the UNESCO Global Monitoring Report of 2013, child death could be cut in half by simply educating their mothers. In addition to the obvious improved welfare of their citizens, the money saved from decreased illness and child death will offset the cost of education to developing governments. (UNESCO, 2014).

Of course, educating girls when their traditions do not mandate it is not without concerns. Many people fear that by accepting education, the girls of the world must deny or reject their culture, religion, or family, but this is not the case. If teachers and education advocates are respectful of traditions, education can provide the opportunity for girls to actively explore the meanings of their traditions and religions. This type of classroom environment allows girls to make choices for themselves about what they believe rather than having a belief system forced on them by their husbands or family. In addition, by educating girls today, we provide the girls of tomorrow with female teachers from their own cultural background, further promoting respect and encouraging cultural preservation. Lauren Hersh (1998), Director of Anti-Trafficking Policy and Advocacy at Sanctuary for Families says, "Efforts to change harmful traditions are most effective when they originate within the culture that practices them." Rather than outsiders choosing which cultural practices to abolish and which to preserve, educated girls can choose which traditions best serve them and their families and which diminish the humanity of girls and women.

Lack of understanding plagues uneducated girls around the world. For example, since the 1980s when human immunodeficiency virus (HIV) was identified and Acquired Immune Deficiency Syndrome (AIDS) was officially recognized and named as a

disease, it has ravished our planet and the lives of the individuals that it touches. Although once a death sentence, now with improved testing and treatment, many HIV positive people in the United States live long, healthy lives. From the beginning, this disease brought with it an unprecedented amount of discrimination equal only to the ignorance of the disease's transmission and progression. This ignorance, however, lives on and many people in the developing world find their lives destroyed upon revealing a positive HIV test. Women are shunned by their families, peers, and communities. It is not uncommon for HIV positive girls to be forced from their homes and thrown to the streets where they face starvation, harassment, and violence. These girls can become increasingly marginalized until the stigma of HIV overwhelms them with complete loss of hope and feelings of worthlessness. Because of this, many girls delay testing and thus, continue to spread the disease since they are seen as vessels to impregnate in a predominately male-driven society (UNESCO, 2013a).

While many governments and organizations are working to prevent, diagnose quickly, and treat HIV/AIDS, it continues to grow at a rate of two million new cases a year. In 2014, \$19.2 billion was made available to combat the transmission of HIV in low and middle income countries. However, despite all attempts, it is estimated that by 2031, \$35 billion annually will be needed to continue to combat HIV/AIDS (Avert, 2016). Many methods are needed if an elimination of HIV is to be accomplished, but the education of girls is proving to be an effective part of prevention.

Educated girls, as opposed to girls who drop out of school or are never enrolled, often delay becoming sexually active until their eighteenth birthday or later. Those that do become active earlier, usually make safer choices, and are more capable of resisting

sexual violence. The significance of this is made especially clear when considering the African country of Congo, where 30% of rape survivors are infected with HIV (Stephan Lewis Foundation, 2015).

The positive effects of education on HIV transmission is exemplified by a study that was performed in Uganda in 2004 by Damien De Walque of the effects of education on HIV transmission in the developing world, which demonstrated that each additional year of education for girls reduces their chances of contracting HIV by 6.7 percent when combined with HIV specific education. As mentioned earlier, in Malawi, the 60% reduction in contracting HIV shows how much more effective this can be when done well. The effects of such numbers are incalculable.

These numbers mean not only less babies born to a bleak future of unexplained poor health, but also fewer missed days of work or school on the mother's part due to illness or doctor's visits. Countries struggling to meet budget needs for HIV treatment will finally see a plateau in demands for funds. The societal benefits are incalculable as thousands of men, women and children will be free from the sense of impending doom that an HIV diagnosis can bring in the developing world. Instead, these people are free to pursue their own personal development and can more freely contribute to their societies. Members of a fair and ethically minded community cannot sit idly by while hundreds of thousands of innocent babies are infected yearly with an appalling disease, destined to suffer not only physical trials, but social deprivation when the transmission of this disease is preventable with education. Rather than committing humankind to future expenditures of billions of dollars to treat HIV and AIDS, compassionate individuals can affect the rates of transmission by donating funds to support education

in general and HIV education specifically. By eliminating HIV infection as a major threat to these communities, their resources as well as outside financial aid can then be centered on resolving remaining social problems.

To complicate the obstacles poor families and their daughters face, many families also find themselves living in areas of armed conflict. Armed conflict does severe damage to a country's level of education by instilling civilians with fear and awaking a survival mode outlook on life. Parents begin to focus on surviving the violence and food shortages of today rather than having the privilege of planning for their children's future. Because schools are often targeted by suicide bombers working with rebel regimes in places like Sudan and Pakistan, parents keep children home from school out of fear for their safety. Decisions made by parents in the Congo and Colombia not to educate their children are reinforced because of the frequency with which terror organizations, such as the Fuerzas Armadas Revolucionarias de Colombia and the Democratic Republic of Congo, abduct children from the classrooms and turn them into soldiers (UNESCO, 2011). Because in many cases, this is where rape occurs as either a prize for the victors or as a strategy for domination, parents become more protective of their daughters, magnifying the gender disparity in school attendance. Extreme cases such as in 2014, when Boko Haram, a Nigerian terror group, kidnapped 230 school girls to serve as their kitchen and sex slaves temporarily draw media attention worldwide, but long term consideration for the safety and education of the girls trapped in these situations is the only solution to such global violence (Duthiers, Karimi, & Botelho, 2014). For example, Malala Fund is providing the few girls who have escaped from Boko Haram with counseling and scholarships to complete their

secondary education, as well as implementing safe schools and alternatives such as long distance learning for Nigerian girls. This organization, as well as others like it, depend on the donations of those individuals who understand that by peacefully combating this violence with education, they are providing girls born in these conditions with the courage to speak out and demand the world's attention to their plight.

For instance, when armed conflict is at its worst, it creates refugees, interrupts classes, and separates children from their teachers. To make matters worse, many conflicts are not resolved quickly, causing refugees to spend years away from their homeland and more unnecessary funds to get tied up in waging war for no real solution. Because low income countries average twelve years in resolving conflict, thousands of children have more than a year or two of gap in their education. Some children completely miss the opportunity to attend school, creating an entire generation without education (UNESCO, 2011). Funding safe education for these children is paramount since education combats future violence by promoting social equality.

Because education also creates a sense of self-worth and hope for the future, it can be a vaccine against future armed conflict. Educated children of both sexes are much more able to resist the call to violence and quicker to invent peaceful solutions. Furthermore, much of what is learned in school is not found in the textbooks. Children learn critical thinking, problem solving, communication, and social skills from their peers and their instructors. When girls are permitted to become teachers they also become role models for those in their care. In fact, even after Malala's personal experience with Taliban violence, she believes that educating girls is the most important step towards the goal of world peace, stating "I began to see that the pen and the words that come

from it can be much more powerful than machine guns, tanks or helicopters" (Yousafzai & Lamb, 2013). Contrary to everything all too many cultures believe, it is highly possible that these forgotten girls are not only valuable, but are the very necessary instruments of peace.

However, the girls of the world cannot reach their full potential as peacemakers and leaders of the future while they still remain voiceless. Illiterate, subservient girls are unlikely to have the courage to change the status quo. To break free from the bonds of enslaved despair, they need to grasp the hand of someone more powerful than themselves. When citizens of means speak out and validate the basic human right of education for the girls of world by supporting awareness or by donating funds, they are giving these girls permission to reclaim their dreams once more. While not within their grasp alone, together, the world can be made a place where every child's potential is realized.

When only 30% of refugee children complete high school, girls usually lose out. This is especially highlighted in Pakistan where security issues combined with religious and cultural factors mean that only four refugee girls attend classes for every ten refugee boys (UNESCO, 2011). Because armed conflict destroys opportunities for education for children, it perpetuates a cycle of poverty, hostility, and ignorance of a peaceful lifestyle. Adding a lack of education to the list of obstacles refugee children already face, it is understandable that many of them are easily recruited by any movement or regime promising a better life, which takes and manipulates their limited education. It is inevitable, then, that some regimes will resist the education of girls who don't wage war for these causes. By keeping half of the population ignorant and

powerless, extremists encounter less resistance to their policies.

But despite relentless pressure for girls to stay home and accept the roles imposed upon them by their traditions, or in the case of Malala, by a new religious regime like the Taliban, girls like Malala and their parents continue to insist on the basic human right of education. Ziauddin Yousafzai, Pakistani diplomat, father of Malala Yousafzai, and United Nations Special Advisor on Global Education says “We are scared, but our fear is not as strong as our courage,” to show that while fear of violence is great for girls like Malala, the fear of a future without the hope of an education is greater (As cited in Yousafzai & Lamb, 2013). Many girls, given just the slightest opportunity, are willing to stand up for their right to become a person of substance, a productive individual, and a citizen of the world. Foundations like the Malala Fund are working to increase the possibilities of education for girls around the world by providing grants to vulnerable girls, and repairing damaged classrooms.

This is where the world can actively get involved in changing the plight of the vulnerable and under-recognized girls of our age. Individuals who decide not to sit back and allow millions of young lives to be squandered and abused have many options to make their stance heard. While donating money is the most common response, there are many other ways to support Malala Fund and other organizations that focus on girls’ education. By raising awareness or heading up a fundraiser, people can amplify their voice and encourage others to acknowledge the denied rights of girls worldwide.

This solution will also help women find work and create a drive for fairer pay to improve the stability of the household and improve women’s social status. In Pakistan, women with a secondary education earn 70% of what men earn while women with only

a primary education earn only 51% of what men earn. A single year of education increases a woman's earning power by 10-20% (Dhondt, 2009). What's more, women reinvest 90% of their earnings in their family by purchasing food, clothing, and educational opportunities in comparison with men who reinvest only 30-40% in their families. This also allows women to participate in household decisions that affect the entire family dynamic. Esther Duflo, Massachusetts Institute of Technology economist, and director of the Center for Economic and Policy Research's development economics program says "When women command greater power, child health and nutrition improves" (as cited in Kristof and WuDunn, 2009).

Having an education increases a woman's self-awareness and assertiveness. Educated women are more likely to prioritize education for their own children making the benefits of educating girls exponential. An educated woman is aware of her rights and is less likely to tolerate domestic violence or psychological abuse towards herself or her children. The freedom her education gives her increases her independence within the marriage or even allows her the freedom to choose not to marry. She may become more active in local government, promoting laws and policies that benefit women and girls (UNESCO, 2014). This freedom allows her to have a hand in writing her future, the future of her offspring, and future of her nation.

Beyond the tragedy of the lost aspirations of millions of girls is the reality of a society that is not taking advantage of developing half of its citizens, creating a forced dependency and an increased potential for societal breakdown. These societies could be benefiting from twice the number of doctors, lawyers, engineers, teachers, and community leaders that they currently enjoy. By trying to build a community with only

half its resources, much of the developing world finds itself desperately trailing at the heels of other nations who modernize while they themselves are subject to increased poverty, wars, and expanding economically distressed areas. By educating a few girls, entire communities will gain teachers, mothers, and community leaders who value education, allowing organizations like Malala Fund to continue to set up the necessary structures to educate all girls.

Across the globe there are girls who are willing to defy their oppressors. They are ready to risk their lives and security for the hope of a future. These girls will combat the bombers and the machine guns with knowledge and personal growth. All they lack is for the world to recognize their need, support their efforts, and give them the opportunity to change their world. While in 2014, \$135 billion was spent on general foreign aid, education is still vastly underfunded (Anderson, 2015). Humanitarian aid is consistently focused on necessary, but short term needs like nutrition, health, and shelter. Gordon Brown (2016), former prime minister of the United Kingdom and United Nations Special Envoy for Global Education says, "Instead of developing all the potential of all the world's children, we are developing only some of the potential of some of the world's children." Recognizing the benefits of educating the girls of world should increase the willingness of the individual and the public alike to prioritize education of girls as a method to combat extreme poverty, global health crises, and gender discrimination. Lawrence Summers, American economist and one time Harvard professor says that investing in girls' education may well be the highest return investment available in the developing world (as cited in UNESCO, 2011).

Individuals who are interested in combating the world's problems in the most

efficient way possible should consider donating time or money to an organization that prioritizes educating girls and maximizing their potential like Malala Fund. By starting fundraisers or campaigning for congress to support girls' education, more people can be convinced to join the cause and increase awareness. Every dollar donated, every book purchased, every classroom restored, and every signature on a petition is one step closer to offering a real future to a real girl who is struggling to make sense of the world she was born into.

Americans in the twenty first century find themselves in the unique position of having the resources and the power to change the future for girls around the world. Comparable to the situation in which Sufi Mohammed accepted the Taliban's presence in Swat instead of insisting on peace when Malala's mother commented, "He had the chance to be the hero of history but didn't take it," (as cited in Yousafzai & Lamb, 2013). Americans today need to stand up and seize their chance to be a voice for the voiceless and a hero to the oppressed. It is their responsibility as compassionate world citizens to acknowledge the suffering of these girls and send a loud message to their oppressors that such injustice will not be tolerated.

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Mohamed Goma

The “Clash of Civilizations” Reconsidered: Collision Course or Self-Fulfilling Prophecy?

Westchester Community College

Panel: International Studies and Globalization

Mentor: Dr. Eugenia Amditis

*“Our mind is the scene upon which the gods perform their plays,
and we don’t know the beginning and we don’t know the end.”*

— Carl Jung (1306)

The Utility and Resilience of Political Myth

In an age of scientific inquiry and skepticism, how can an idea be so thoroughly discredited yet persist in political discourse? Samuel Huntington’s “The Clash of Civilizations?” is such an idea. In his influential essay, he proposes a paradigm shift from economically or ideologically motivated “conflict between civilizations” to those which are culturally or religiously opposed (22). Huntington, along with prominent contemporary Zbigniew Brzezinski, subscribes to the concept of political realism, which assumes that international politics is necessarily a power struggle between competing national interests. In contrast, professor Richard E. Rubenstein utilizes a conflict resolution lens to reveal the insufficiencies in this “conflict-as-inevitable” model by showing how cultural differences are only rediscovered and emphasized when “identities, liberties, and livelihoods are seriously and immediately threatened by powerful, culturally distinguishable outsiders” (126). These cultural differences largely lie dormant, but since they are so easily recognizable, they suddenly emerge in times of duress. In spite of this, Huntington and others erroneously contend that cultural differences are the root causes of conflict in and of themselves.

In addition, critics have shown how Huntington’s conception of static civilizations disregards “the evolving relationships between sections of different civilizations [to] produce shifting parameters of belonging” (Karim 9). That is to say, cultures change

over time, and have the ability to influence and morph each other in new and unexpected ways. It is almost as if Huntington is dismissive of cultural diffusion entirely, or perhaps he underestimates its importance in favor of stressing what he calls “civilization identity” (25). On the contrary, as Edward Said asserts, “cultures are too intermingled, their contents and histories too interdependent and hybrid, for surgical separation into large and mostly ideological oppositions” (6).

Despite many of these flaws, “Clash of Civilizations” continues to thrive in an increasingly “post-truth” political environment where appeals to emotion often supplant factual analysis. In the social sciences generally, and in political science in particular, the significance of instinct and emotion has traditionally been overlooked in favor of the supposed primacy of reason or rationality (Leys 436). To compound this further, “post-truth” politics is driven by the popular notion that “every modern period may consider itself less honest than the ones preceding” (Lambert-Beatty 57). Decades of “perception management” has led to widespread suspicion permeating through society, which in turn creates the conditions for the appeal of oversimplified explanations. These frequently inaccurate accounts have crystallized popular understanding of sophisticated issues, “regardless of how 'demythologized' or 'enlightened' a group may consider itself” (Esch 358). In fact, it has been noted by religious historians and psychoanalysts alike that while modern man may regard himself free from the “magical thinking” of his ancestors, “that behavior is still emotionally present to him, in one form or another, ready to be reactualized in his deepest being” (Eliade 204).

Thus, in order to understand the endurance of Huntington’s idea, we must move beyond the rationalist presumption and look towards the relationship between myth and

social identity. Myth is commonly misunderstood as simply “a widely held but false belief or idea” (*OED*). However, as we delve more deeply into this topic, it will become apparent that the authenticity of any particular story is less important than the potential power of myth to develop “a common narrative by which the members of a social group can provide significance to their political conditions and experience” (Bottici 315). These narratives serve to infiltrate the collective unconscious and access the myths of American Exceptionalism and Civilization vs. Barbarism through use of lexical triggers. The repetition of incendiary phrases such as “freedom’s defender” and “they hate us because of what we love” immediately frame the conversation in terms of these two foundational myths (Esch). From this perspective, Huntington’s thesis has been resurrected for a new audience and reemployed to provide a wholly self-contained diegesis through which policymakers may explain complex global conflicts to a bewildered public.

The Myth of Primordial Values: An Ever-Changing Landscape

What often goes neglected in the brief explanations given by policymakers is a recollection of how we arrived at such a precarious situation. There is a common practice in American culture to “avoid the past, to separate one’s self and one’s larger cultural context from what has come before, what Gore Vidal called ‘the United States of amnesia’” (Jones 133). We are sorely lacking in a comprehensive view of what led to this supposedly predestined “Clash of Civilizations.” However, a brief historical inventory clearly reveals its origins.

Since the collapse of the Ottoman Empire, the Middle East has undergone extraordinary transformation. National sovereignty movements and the disintegration of colonial structures have spawned new ideas of political self-determination. Above all other ideologies, secular Arab nationalism became the most popular in the Arab world (Hagopian 104). Muslims and Christians alike rallied around Arabic language and culture as a source of identity, and rejection of Western imperialism as a unifying force. This sentiment would dominate political thinking up until the Six-Day War of 1967, which is also known as *an-Naksah* in Arabic, or “The Setback” (Dawisha 25). An Islamist interpretation that the Arab defeat was a form of divine punishment rapidly gained traction in the absence of secular response, and so this event proved to be a major shift in political consciousness for generations to come. Middle East scholar Fouad Ajami would eulogize Arab nationalism in a strikingly familiar and prescient way:

Political ideas make their own realities. Often in defiance of logic, they hold men and are in turn held by them, creating a world in their own image, only to play themselves out in the end, shackled by routine problems not foreseen by those who spun the myth, or living past their prime and ceasing to move people sufficiently. Or, political ideas turn to ashes and leave behind them a trail of errors, suffering and devastation.

(355)

From the ashes of secular Arab nationalism rose a rejuvenated political Islam to take its place. Fringe Islamist groups, which were previously marginalized and even outlawed, were now given an opportunity to find their place amongst the mainstream. One of these groups was the Egyptian Muslim Brotherhood. Like any group, the Brotherhood

was comprised of a diverse range of ideologies. Some members believed in pursuing their goals through democratic means. Others would become disillusioned with the political process entirely and turn to violence, chief among them the current leader of Al-Qaeda: Ayman Zawahiri.

The rise of Islamic fundamentalism was not strictly an internal phenomenon. The United States played a major role in sponsoring these groups throughout the “Arc of Crisis” as a bulwark against Soviet expansion. This area, stretching from Afghanistan in the East to the Horn of Africa in the West, was of critical strategic importance due to concerns over “Soviet threats to its integrity and independence, fair and peaceful resolution of the Arab-Israeli conflict, and safe access to its oil” (Lenczowski 796). There were also deeper geostrategic concerns, particularly in regards to the prospect of Soviet world domination. This sentiment originates in Sir Halford Mackinder’s “Geographical Pivot of History”, or “Heartland Theory.” According to this theory, the Eurasian continent is perceived to be the fulcrum of world power, and so drastic efforts were taken by the United States to prevent the Soviet Union from establishing a foothold on their southern flank. In Mackinder’s words: “[he] who rules East Europe commands the Heartland; [he] who rules the Heartland commands the World-Island; [and he] who rules the World-Island controls the world” (Cotter 107). One major advocate for the “Heartland Theory” was National Security Advisor to the Carter administration, Zbigniew Brzezinski. As Brzezinski phrased it, “What was more important in the world view of history? The Taliban or the fall of the Soviet Empire? A few stirred-up Muslims or the liberation of Central Europe and the end of the Cold War?” (Drumbl 1129).

In the context of this gamble, the US employed a deliberate strategy to incite, to recruit, and to sponsor Islamic fundamentalists. This initiative began with the use of media operations, such as Radio Free Europe and Radio Free Afghanistan, as a means of spreading anti-communist sentiment throughout the Soviet sphere of influence (Puddington 5, 290). Recruitment and sponsorship was fulfilled by programs such as the CIA's Operation Cyclone, which provided arms and financing to mujahedeen, or "Jihad warriors" in Afghanistan (Bergen, "Holy War" 68). While the concept of jihad as both a personal struggle and military obligation has deep roots in Islamic jurisprudence; not until the late 1970s and early 1980s did it become a lucrative and pseudo-professional business opportunity, leading commentators such as Eqbal Ahmad to coin the phrase "Jihad Inc." to describe this new incarnation (Haq 1026).

This modern holy war against an invading atheist empire in the Soviet Union neatly aligned with Saudi Arabia's plans to export radicalism as a "pressure-release valve" for its own domestic problems. In November of 1979, a group of insurgents took control of the holiest site in Islam, the Grand Mosque of Mecca. They intended to overthrow the ruling Saud family and usher in a return of the Caliphate. However, the uprising was quelled with the assistance of French and Pakistani special forces (Miller). In the aftermath of the Grand Mosque Seizure, the Saud family pledged even more support to the puritanical Wahhabi religious movement as a form of appeasement (Wright 155). Along with ongoing financial support in the form of religious schools and offices where their message could be proselytized, Saudi Arabia also facilitated the transfer of mujahedeen to the anti-Soviet campaign in Afghanistan. This would prove to have long lasting effects for the security of the region, and the world.

As we can see, what Huntington would categorize as “differences and animosities stretching or thought to stretch back deep into history” are in fact a fluid amalgam of diverse ideologies that rise and fall in popularity to suit the particular circumstances of a society at any given point in time (26). Not only does the term “Islamic fundamentalism” cover a wide array of political beliefs, “but it is also apparent that [Islamic fundamentalist] movements are developing new forms of synthesis between state and religion rather than restoring a primordial or ‘original’ Islam” (Bhabha 325). It is clear that a convergence of several factors, both internal and external, led to the rise of this new Islamic fundamentalism.

A Self-Fulfilling Prophecy

In light of this shift, there are two dominant schools of thought through which political Islam is perceived in relation to the West: essentialist and contingencist. The essentialists are those who contend that irreconcilable differences in values will lead towards an inevitable conflict; that is to say, that Islam and the West are *essentially* incompatible. The contingencists are those who propose that conflict is dependent on a certain set of criteria, in other words, *contingent* on socioeconomic conditions. Among scholars, Huntington and Bernard Lewis are the primary advocates for the essentialist perspective. It was in fact Lewis who first coined the phrase “Clash of Civilizations” in his essay “The Roots of Muslim Rage” where he sets up the dichotomy between “perhaps irrational but surely historic reactions of an ancient rival” and “our Judeo-Christian heritage, our secular present, and the worldwide expansion of both” (60). In contrast to this adversarial framework, John Esposito, one of the main proponents of the

contingencist view, has presented a diversity of both traditional and reformist views within Islam itself. In moving beyond the minutiae of specific hadith, fatwas, or scholarly interpretations and instead looking at what Muslims actually believe; he shows how above all else, “Western” values such as democracy and freedom of speech are held in the highest regard (18). Another contingencist and perhaps the preeminent scholar in this field is Edward Said, who with his seminal text “Orientalism” demonstrates the contentious relationship between power and knowledge, and how this conflict of interest tends to shape the way in which information about “the Orient”, and Islam in particular, is generated.

This debate is not merely theoretical—it has immense real world consequences, for both sides are vying to influence the very decision makers who have the power to make their predictions come true. In this respect the essentialists have an advantage, for the same orientation of inevitable conflict and subsequent strategy of containment employed against the Soviet Union was perceived to be a success in political circles. As a result, “the essentialist argument that political Islam presents a monolithic threat is thus more likely to be 'appreciated,' than contingencist warnings of the self-fulfilling nature of such a policy” (Salla 733). Sociologist Robert Merton defines a self-fulfilling prophecy as follows:

The self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behavior which makes the original false conception come true. This specious validity of the self-fulfilling prophecy perpetuates a reign of error. For the prophet will cite the actual course of events as proof that he was right from the very beginning. (195)

By declaring that Islam and the West are essentially incompatible, political leaders begin with a false definition. This error leads to mistakenly generalizing the headline-grabbing terrorist fringe as symptomatic of Islam in general. Wholesale policies like De-Ba'athification in Iraq would open the door for militant groups Jama'at al-Tawhid wal-Jihad (JTJ) and Al-Qaeda in Iraq (AQI), who later became known as the Islamic State of Iraq and Syria (ISIS). As journalist Peter Bergen has reported, and based on the Bush administration's own 2006 National Security Estimate, "the Iraq War has increased radicalization in the Muslim world and provided al Qaeda with more recruits than it would otherwise have had" ("Al Qaeda" 21). Later policies such as the drone strike program under the Obama administration were meant to alleviate terrorist recruitment and reduce risk to US personnel by conducting attacks with no visible opportunity for retaliation. This would also prove to be an ill-fated strategy— according to internal memos, "during a five-month stretch of the campaign [in Afghanistan], nearly nine out of 10 people who died in airstrikes were not the Americans' direct targets" (Devereaux). Unintended or not, these attacks were seen as a form of collective punishment unfairly applied to innocent people, and served as a rallying cry for even more terrorist recruitment. This phenomenon is analogous to the rise of Khmer Rouge in Cambodia, for while civilian casualties may be considered unfortunate consequences in the short-term, what is called "collateral damage" in fact serves recruitment propaganda in the long term—"the Khmer Rouge grew from a small force of fewer than 10,000 in 1969 to over 200,000 troops and militia in 1973" (Kiernan 2). The same effect repeats itself throughout the Middle East today, and is not constrained to this region alone. As conflict

spreads, the self-fulfilling prophecy manifests itself and policymakers will point to a preventable condition as validation for their predictions.

Conclusion

The “War on Terror” has taken on a self-perpetuating nature with no end in sight. According to the UN’s latest estimate, global forced displacement is at an all-time high (Edwards). What has been characterized as an inevitable clash between fundamentally divergent civilizations is in fact the product of recent historical events, failed diplomacy, and imprudent decision making. Ascribing the cause of conflict to differences in essentially incompatible values is disingenuous at best, and has proven to undermine the prospect of dialogue. When the conversation is phrased in nomenclature of the dominant myth, i.e.: “Good vs. Evil,” any possibility for rational discourse disappears. For a true democracy to function the public must be well informed on the complex nature of conflict and not be strung along with sensationalistic accounts. Perhaps this tendency to oversimplify and appeal to emotion is best exemplified by one of the founders of political realism, Hans Morgenthau, when he declares:

The statesman must think in terms of the national interest, conceived as power among other powers. The popular mind, unaware of the fine distinctions of the statesman's thinking, reasons more often than not in the simple moralistic and legalistic terms of absolute good and absolute evil.
(165)

By relying on the myths of “American Exceptionalism” and “Civilization vs. Barbarism” to explain conflict in a “moralistic” sense, policymakers have fomented a “Clash of

Civilizations" instead of developing strategies to mitigate such a potential clash. It is of utmost importance to break free from this archaic thinking in order to build bridges of understanding and pave a future road to reconciliation and cooperation. Confronted with these challenges, it becomes necessary to identify valid overseas security concerns along with real problems in refugee integration and not get lost in a sea of fear and uncertainty.

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Nirav Mehta

The Once & Future Kings: A Comparative Study of Kings Arthur & Rama, & Their Defeats to Love

Montgomery College

Panel: Literature: Philosophy and Religion

Mentor: Dr. Christina Devlin

“The essence of being human is that one does not seek perfection, that one is sometimes willing to commit sins for the sake of loyalty, that one does not push asceticism to the point where it makes friendly intercourse impossible, and that one is prepared in the end to be defeated and broken up by life, which is the inevitable price of fastening one's love upon other human individuals.”

~ George Orwell, *Reflections on Gandhi*

The search for a perfect man and king, and the thirst for true love are older than the time when music first descended into words. Recited around firesides at night and sung through the land in daylight, the origins of the tales of King Arthur of Britain, and King Rama of India were rooted in folklore and song before being collected in the scripture and the novel. Historians have yet to ascertain the exact circumstances of the birth of these legends, and whether they were true tales of real men, and kings, or figments of human imagination. However, the true significance of these tales lie their nurturing the growth of the lands that seek to live by them. Each generation seeks to unite their story with these ever-changing tales.

Alfred Lord Tennyson's *Idylls of the King* and Ramesh Menon's *Ramayana* retell two epics that have defined the consciousness and civilizations of Britain and India respectively. They represent the eternal yearning for a king with perfect adherence to duty, and a man who is the embodiment of love and courage. However, they are first and foremost stories of love, which presents the severest challenge to their moral perfection. As man approaches the realm of the divine, and as god walks the path of

man their ideal of moral perfection, both find themselves falling farther away from true love, and being human.

In *Idylls of the King*, Tennyson's Arthur attempts to rise to the realm of divinity in his pursuit of moral perfection. However, goodness is turned into an object as Arthur and his Knights of the Round Table flail in pursuit of the Holy Grail, and lose themselves to immoral ways in fighting the evil Red King. Guinevere's infidelity to Arthur reveals that the more Arthur has approached perfection, the farther he has gotten from being human, and being able to love and be loved with passion.

In Menon's retelling of the *Ramayana*, we find that although Rama is an incarnation of the God Vishnu, he fails to be perfect in his adherence to duty as a man and king. Rama cannot do justice to his true love, Sita, who must repeatedly pass tests proving her chastity after being rescued from Ravana, and is ultimately banished by Rama. In contrast to Guinevere and Arthur, Sita's loyal endurance of Rama's orders enlightens us that true love rises above moral duty. Being an incarnation of God, Rama's failures suggest that perfect morality may be unattainable, leaving true love, and not morality, as the only ideal for humanity to pursue.

I. Gazing Upon the Sun – *The Idylls of the King*

The Idylls of the King is a collection of twelve narrative poems, published separately between 1859 and 1885 by Alfred, Lord Tennyson, the poet laureate of Great Britain and Ireland. An “idyll,” derived from the Greek “eidullion” denotes a short poem that is intimate in description of a rural and rustic world, as found in the ancient Greek

poet Theocritus's short poems of rural life (Randel, 312-314). The *Idylls* are not written as epic poems, but in blank verse as elegiac accounts. Tennyson describes the natural world and intimate elements of the life and times of Arthur, a legendary British king. The historicity of Arthur is debated; those who assert his existence believe Arthur led the defense of Celtic Britain against Saxon invasions between the 5th and 6th centuries. Many details of his life and reign are based on the accounts given by the medieval histories *Annales Cambriae* and the *Historia Brittonum*, but Arthur remains a figure given life by folklore, poems and other literary sources. For the *Idylls*, Tennyson drew heavily from Sir Thomas Malory's *Le Morte d'Arthur* (The Death of Arthur), which was first published in 1485 (Tennyson, 9-10).

The twelve poems that constitute *Idylls* begin with the ascendancy of Arthur, who rescues the besieged king Leodogran. The rescued king nevertheless raises questions about the truth around Arthur's birth, and thus the legitimacy of his claim to the throne of ancient Britain (Tennyson 25-32). It is of importance to note what Tennyson has not taken, or minimized elements from prior Arthurian legends. Most legends of Arthur agree that his was an illegitimate birth, conceived when his mother Igraine, the wife of Gorlois, Duke of Cornwall was deceived into having sexual intercourse by King Uther Pendragon (Lacy, *Launcelot-Grail*, 1215). Arthur's birth is surrounded with deceit and immorality, and represents a primary motivation for his purpose, to rise above his time, and liberate himself from the stain of his own origin in deceit, war and lust.

Leodogran's doubts are relieved by a dream of Arthur's coronation in Heaven, which

affirms Arthur's divine right:

"As nothing, but the King stood out in heaven, / Crown'd. And Leodogran awoke, and sent /Ulfius, and Brastias and Bedivere, / Back to the court of Arthur answering yea."

(Tennyson, 33)

He agrees to Arthur's proposal to marry his daughter, Guinevere, and she is brought to Arthur by his knight Lancelot. In the poem, *Gareth and Lynette*, as Gareth approaches the capital, Tennyson further develops the image of Arthur and his court as magical, and unreal:

"But these, my men, / (Your city moved so weirdly in the mist) / Doubt if the King be King at all, or come / From Fairyland; and whether this be built / By magic, and by Fairy Kings and Queens / Or whether there be any city at all, / Or all a vision." (Tennyson, 42-43)

Gareth is replied to by a seer, who is the wizard Merlin, who states:

"And, as thou sayest, it is enchanted, son, / For there is nothing in it as it seems / Saving the King: tho' some there be that hold / The King a shadow, and the city real."

(Tennyson, 43)

Tennyson is thus developing an image of Arthur as a magical and unearthly king, but in the latter quotation by Merlin, also suggesting that Arthur's chasing of moral perfection makes him a "shadow" to his human subjects, who inhabit the city and make it "real."

Tennyson gives Arthur not only strong powers of moral insight and judgment, but elevates him to an aura of divinity by giving him the ability to unveil the truth in men, and mold youth into heroic knights. Much like the omniscience of the divine, Arthur's reputation for judging character is fearsome amongst his people:

"The blameless King went forth and cast his eyes / On each of all whom Uther left in charge / Long since, to guard the justice of the King / He'd looked and found them wanting." (Tennyson, 124)

In the poem, *Gareth and Lynette*, King Arthur recognizes and makes a courageous and fierce warrior out of the young Gareth, who had been serving in the royal kitchen. Gareth is in awe of Arthur, and believes his disguise will instantly uncovered by the virtuous king. Tennyson describes Gareth's approaching Arthur with a strong evoking of a man awaiting judgment from the divine:

"Then into hall Gareth ascending heard / A voice, the voice of Arthur, and beheld / Far over heads in that long-vaulted hall / The splendour of the presence of the King / Throned, and delivering doom – and look'd no more - / But felt his young heart hammering in his ears, /And thought, 'For this half-shadow of a lie, / The truthful King will doom me when I speak.' (Tennyson, 44)

Arthur's decision to knight the boy and send her to rescue Lynette's sister, drives the love story between Gareth and Lynette, whose cantankerous character and outrage are

melted by Gareth, who emerges as a man and a warrior. In the poems of *The Marriage of Geraint* and *Geraint and Enid*, Arthur is not a primary character, but he is instrumental in the resolution of a moral crisis that affects the knight Geraint, who governs the province of Devon. Reputed as a brave and great administrator, Geraint becomes consumed with suspicion and jealousy when he starts doubting, wrongly, the virtue of his wife Enid. When at the end of his travails, Arthur praises Geraint as a noble, loving and courageous man, he becomes the mirror against which, Geraint is forced to reflect further upon his mistreatment of his wife. Consumed by shame, Geraint admits his mistreatment of his loving wife and the consequences it had on his failure as a ruler and knight (Tennyson, 117-20).

The flailing pursuit of the Holy Grail by Arthur's knights reveals that goodness and moral purity have become both an object to be coveted and possessed, rather than lived and experienced. Therefore, the evidence of the divine must remain an illusion that visits only in dreams (Tennyson, 220-23). Despite their various reputations for valor, courage and righteousness, none of Arthur's knights can gain possession of the Grail. Only a few are visited in their dreams by the sight of the Grail. In their endeavor to see the Grail and possess it, the knights risk losing themselves entirely:

"Thereafter, the dark warning of our King, / That most of us would follow wandering fires,
/ Came as a driving gloom across my mind." (Tennyson, 216)

Arthur's prescience distinguishes him from his more-human knights. Arthur is aware that
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to pursue the Grail with no care for duty is to pursue an object and not the values it represents. This pursuit leads to a critical dismemberment of the original Round Table that marks the beginning of the decline of King Arthur. That the Grail is seen only in dreams by certain knights asserts the illusory nature of man's desire to possess divinity.

In the emergence of the Red King and his evil counterpart of the Knights of the Round Table, Tennyson is further elevating Arthur towards the mantle of divinity by invoking the Christian tenet of the counterpart of God, and in doing so, exposes that Arthur's world is still full of the human-ness that is temptation, hypocrisy and immorality. The Red King proclaims himself opposed to everything Arthur and his Knights represent, but with the explicit intention of exposing that his kingdom and his knights may be representing a facade:

"Tell thou King and all his liars, that I / Have founded my Round Table in the North, /And whatsoever his own knights have sworn / My knights have sworn counter to it – and say / My tower is full of harlots, like his court, / But mine are worthier, seeing they profess / To be none other than themselves – and say / My knights are all adulterers like his own, /But mine are truer, seeing they profess / To be none other." (Tennyson, 250)

The Red King's claims of the true nature of Arthur's court are eerily prescient of the terminal conflict that Arthur will face - of Guinevere's affair with his greatest knight, Lancelot. It is noteworthy that the Red King is former knight of the Round Table who is disillusioned and leaves, just as the Christian religion considers the devil as one of

God's angels, fallen from Heaven (*Burton*, 194-196, 221-240). In this very battle between good and evil, Arthur's knights fail to uphold the mantle of God's angels. Their outrage leads them to betray the principles of their own leader and cause:

"Nor heard their King for their own cries, but sprang / Thro' open doors, and swording right and left / Men, women, on their sodden faces, hurl'd." (Tennyson, 260)

After defeating the forces of the Red King, they massacre women and children without regard to the rules of war, much less the instructions of their king. In leaving Arthur's court, the Red King expressed his challenge to Arthur's leadership and claimed to expose the hypocrisy that filled his court. He earns himself a Pyrrhic victory, for although he is vanquished, the Red King proves to Arthur that his loyal knights are no truer to their King than the Red King. Although victorious, and peace being achieved, Arthur is deeply saddened:

"So, all the ways were safe from shore to shore, / But in the heart of Arthur pain was lord."

(Tennyson, 261)

The battle against evil is won by the side that now represents the good only in name, for their methods were no less evil than the Red King they destroyed. However, the wound that strikes Arthur the deepest is his betrayal by Guinevere, whose affair with Lancelot exposes the inability of the divine to attain human love. Queen Guinevere's infidelity is

driven by her sense of being unable to love a husband she believes is too perfect:

"Arthur, my lord, Arthur, the faultless King, / The passionate perfection, my good lord - /
But who can gaze upon the Sun in heaven?" (Tennyson, 171)

Although King Arthur's distance from his queen is not described by Tennyson, the preceding tale of Geraint and Enid serves as a warning to those kings who become obsessed by their wives, and not necessarily in their love. While Enid is a queen who never betrays Geraint despite his suspicions and callous treatment of her, Arthur's obsession towards building a perfect kingdom of virtuous rule is alluded to as the cause of Guinevere's alienation from him. Although condemned for her infidelity, Guinevere's actions underline a key assertion of Tennyson's – that the closer man rises towards divinity, the farther he is delivered from what makes him human. Tennyson notes that Arthur's grief would be more severe for the fact that he is both betrayed as a lover and a great king:

"Ah sweet lady, the King's grief / For his own self, and his own Queen, and realm, / Must needs be thrice as great as any of ours. / For me, I thank the saints, I am not great."
(Tennyson, Guinevere, 274)

It is true that Guinevere cannot match Arthur's virtue, which is significant as she is the queen of the land. However, in admitting her moral failure, Guinevere is truer to her real nature than Arthur, who is attempting to rise beyond humanity and into the divine. It is

contended by George Orwell that being human requires an ability for personal love, which includes a willingness to invest oneself entirely with one's beloved, and even make oneself vulnerable and risk destruction for love's sake (Orwell, *Reflections*). The pursuit of the divine, by saints or kings, demands an impersonal love for humanity, which Arthur exhibits as a king for his people. A love for his kingdom leaves Arthur detached from the moorings of passionate love, and unable to share it with his wife. He can know the inner natural potential of Gareth, and hold a mirror to Geraint's heart, but cannot unite with his wife's. In contrast, the valorous Lancelot, otherwise a beacon of righteousness, is nonetheless a prisoner of his own passions – the one but distinct flaw in nature that allows him to be more human than the King. As Guinevere says:

"He is all fault, who hath no fault at all; / For who loves me must have a touch of earth."
(Tennyson, 171)

The closer Arthur rises towards godliness, the farther he leaves being human, and being able to love with passion. Tennyson forges a distinctive climax for the *Idylls*, where Guinevere and Arthur rediscover each other in love. Unlike in other versions of the Arthurian legend, Arthur is forgiving towards Guinevere. He somewhat admits he did not understand Guinevere for the woman she was, but struggles with understanding her as a man. The forgiveness he offers must be the forgiveness of the divine, but as a man, he struggles to express his anguish at losing her:

"Lo! I forgive thee, as Eternal God / Forgives; do thou for thine own soul the rest. / But
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how to take last leave of all I loved?" (Tennyson, 283)

In the poem, *The Passing of Arthur*, Tennyson's portrayal of Bedivere's hesitation to return Excalibur to the Lake of Avalon represents an instruction to humanity to not covet goodness or divinity as an object. The only surviving knight of the famous Round Table, Bedivere is charged with carrying out the final wish of his dying king. However, he twice stops himself from throwing the sword into the lake, overawed by the awesome reputation and power it enshrines (Tennyson, 294-95). The sword Excalibur, is in fact the very symbol of Arthur's destiny – it formed the basis of his divine right to rule, and was the sword by which he defeated his many enemies and forged a legendary rule over ancient Britain. However, it was most importantly the greatest symbol of Arthur's purity, and the pursuit of divinity. It is the element of magical power that separates his destiny from his great contemporaries, and sets him on a distinct course in history. While the Holy Grail served as an object in illusion, Excalibur was the object that moved the events of every Arthurian legend (Tennyson, 293). Bedivere's hesitation to surrender Excalibur to the lake may represent his own unwillingness to admit that the glory of Arthur and the Round Table is past:

"Then loudly cried the bold Sir Bedivere: / 'Ah! My Lord Arthur, whither shall I go? / Where shall I hide my forehead and my eyes? / For now I see the true old times are dead, / When every morning brought a noble chance, / And every chance brought out a noble knight. / Such times have been not since the light that led / The holy Elders with the gift of myrrh." (Tennyson, 298-99)

Bedivere is not, ultimately, by nature a disloyal or avaricious knight. However, Bedivere also represents the very covetousness of the divine that undid so many knights who sought to chase the Holy Grail. Releasing the divine power of Excalibur thus proves immensely difficult, and Bedivere represents humanity's eternal temptation to pursue the divine and magical. Arthur's questioning and chastising of Bedivere, leads Bedivere to finally surrender the sword. This insistence is symbolically powerful as a warning from Tennyson that the divine and the magical cannot be coveted as an object. The prophecy fulfilled, and fate having taken its course, the message of Arthur's tale seems to be for men and women to be true to their own nature, and not seek what is not genuine. Although man regards divinity as a lofty goal, taking him towards the sky, it is in truth a fall, for he falls from his own nature and his own kind.

II. God Among Men – the Ramayana

Even as the legend of King Arthur represents a man's pursuit of divinity, the Ramayana, literally "Rama's journey," represents the descent of God into the realm of humanity, with the purpose of personifying the Maryada Purushottama – the perfect man (Pollet, 170-75). Rama is the incarnation of Vishnu, and is exemplified by his strict adherence to duty and perfect morality in the face of many tribulations (Pollet, 170-75). The epic was born in the oral traditions of ancient India and has been compiled into 24,000 Sanskrit verses in seven books (kandas) and 500 cantos (sargas) to constitute one of the longest epic poems in history. In the traditions of Hinduism, its authorship is ascribed to the sage Valmiki, but the historicity of Valmiki and the characters who inhabit

this tale remain shrouded in mystery. Ramesh Menon's English translation and novelization of the epic enlightens us to the truer questions about the epic. Even though it is God showing humankind how to be perfectly human, does it necessarily mean he will be successful? Perhaps not.

In Menon's *Ramayana*, Rama represents the yearning of the people of Ayodhya for a virtuous and dutiful king who does not surrender to passionate entanglements that reduce him to mediocrity. Much as Geraint served as an example of a ruler obsessed with his wife and overwhelmed by the complex passions that a marriage may stir, Rama's father, King Dasaratha is a virtuous but mediocre ruler who gives most of his time to his many queens, even as he ignores his first wife and Rama's mother, Kausalya (Blank, 20-28). The reactions of the people of Ayodhya to Rama's banishment range from shock and outrage at Dasaratha and Kaikeyi, the queen who instigated the banishment, to sorrow and pleading with Rama not to leave. However, Rama makes no effort to overturn the banishment and believes it is his duty to observe the fourteen years of exile. In contrast to his grieving parents and outraged brothers, and the histrionic people of Ayodhya, Rama is completely dispassionate and observant of propriety:

"There was never any error in what has happened, Bharata. It was the will of not just one but two of my parents that I spend fourteen years in the wilderness. And here I am. I believe that one day you will realize what once seemed to be the obscure path was the way of dharma." (Menon, 141)

While these events contrast with the ascendancy of Arthur, both serve the same underlying principle. While Arthur becomes king at a time of turmoil and uncertainty, his rise restores legitimacy, peace and order. Rama abstains from the throne to demonstrate that a king must remain loyal to duty and morality and not surrender to passions of any kind. The coronation of one and the exile of another represent the supremacy of discipline amongst kings. In contrast to Arthur's ability to unveil or generate the qualities of the divine in his men, some of Rama's interventions have a degenerative effect upon their asserted morality. Rama pledges to help Sugriva vanquish his elder brother, the Monkey King Vali, who has banished him for allegedly attempting to usurp the throne. In the battle between Sugriva and Vali, Rama hides behind a tree and fires an arrow that slays Vali (Menon, 243-45). The dying Vali questions the morality of Rama's action, which appear deceitful and surreptitious:

"You are the worst kind of sinner, the one that pretends to be dharma itself. If you had challenged me openly, I would have crushed you. But you crept upon me like a serpent in the grass and you shot me down." (Menon, 245-46)

Rama struggles in answering Vali. After dismissing him as a mere monkey who deserves no explanation, Rama later represents his action as the deed of a hunter who has hunted an animal, where stealth and secrecy are acceptable (Blank, 173). Rama also chastises Vali for mistreating his younger brother, who deserves his protection (Menon, 246-47). He ultimately reveals that it was Vali's stealing of Sugriva's wife that

resulted in his slaying (Blank, 173-74). This clearly touches the rawest nerve with Rama, whose wife Sita has been abducted and her whereabouts remain unknown. In this instance and action, Rama has clearly surrendered to his passions. Rama's account of his action as that of a hunter does not reconcile with the fact that the monkeys in question were not wild animals, but rulers of a civilized kingdom. Vali and Sugriva fought observing formalities and rules, and Rama's rationale struggles to fit itself upon the circumstances. However, Sugriva does not redeem Rama's trust the way Gareth fulfills Arthur's expectations. Although Rama has helped Sugriva ascend the throne, the latter is no less lost to temptations and caprice than Vali, and proves to be a disappointment. He promptly forgets his promise to Rama and loses himself to royal pleasures. Sugriva only fulfills his obligations after receiving multiple reminders and ever-sterner warnings from Rama's younger brother, Lakshmana. (Menon, 256-59) Sugriva's mediocrity further undermines the rationale of Rama's execution of Vali, which seems more unnecessary with the passage of time and events.

Menon also elucidates that Rama's killing of Sambuka, an act in conjunction with stated duty, has a reverberation of immorality that haunts the king. Sambuka is a *sudra*, the lowest *varna* (caste) in the Hindu caste system, whose members are bound to be farmers and laborers and prohibited from performing any religious ceremonies or practicing religious austerities that may acquire them spiritual power. Acting on the complaint of a brahmin, a member of the priestly caste, who bemoans his dead son to the king, Rama searches the land until he meets Sambuka, who is undertaking a *tapasya* (austere meditation) to earn religious merit and spiritual power (Menon, 629-

630). Rama executes Sambuka to restore the moral order, but cannot rid himself of feelings of guilt and sorrow (Menon, 630-40). In both instances of the killings of Vali and Sambuka, Rama acts in line with stated duty or pledges, but cannot escape consequences of obeying its letter, but not the spirit (Blank, 170-177). It does not take much to imagine that a man of Rama's stature could have fostered a reconciliation between brothers, or convinced Sambuka to peaceably abandon his pursuit, or indeed be magnanimous and open-minded enough to change his own understanding of caste and duty. However, Rama's actions leave no room for the middle ground. Amongst humans, the incarnation of God struggles to preserve the integrity of the word and the spirit.

In the central conflict of the epic, Menon affirms that Rama's opponent, the demon-king Ravana, is not monolithic in his evil, but a glorious ruler and warrior who is undone by a fatal obsession. In contrast to the dichotomy between Arthur and the Red King, who symbolizes the arch-nemesis of God in the Christian religion, the rivalry of Rama and Ravana is not cast in black and white. Although Ravana, king of Lanka has ruined and destroyed many lands in his pursuit of empire, he is very much a pious man, courageous warrior and a beloved ruler of his own people (Menon, 484-85). Lanka is a prosperous and powerful kingdom. While he has given patronage to demons and other evil beings who attack *rishis* (monks), Ravana has also performed religious austerities and earned boons granting him great power and many forms of invulnerability from the gods such as Shiva and Brahma (Menon, 535-46). Indeed, in parts of southern India, it is Ravana who is regarded as a tragic hero (Sarkar, 108-120). Rama's rivalry with

Ravana elucidates that the nature of evil in the world can manifest in a far more complex form than outright enmity with God and goodness (Sarkar, 108-120). Had Ravana listened to many of his counselors, including his own brothers, who advised him to return Sita to Rama, the war would have been averted (Sarkar, 108-120).

It is in the character of Sita that Menon's *Ramayana* most elucidates the power of love over religion and duty, serving both as Rama's personal strength and exposing the fault lines in his adherence to duty. Unlike Guinevere, who is alienated by the "perfect" Arthur, Sita draws closer to her husband as he pursues a rigid adherence to duty. As Rama prepares to leave Ayodhya, he attempts to order Sita not to come with him, as life in the forest was both uncomfortable and extremely dangerous for a beautiful princess:

(Rama) "Sita, this is not the time to try me with frivolous arguments. You must not make this parting harder than it is for both of us. You must obey me; that is your dharma."

(Sita) "You are my world. I will be your wife not just in this life, but in the next one, and forever. When even a moment without you is so painful for me, how will I survive a year, then another three and another ten after those?" (Menon, 90-91)

In repeatedly refusing to obey Rama, and openly challenging his interpretation of a wife's duty, Sita infuses love into the jagged pathway of duty. (Blank, 27-28). While Rama, the incarnation of God, is the most powerful warrior in the world and more than prepared to challenge Ravana, it is Sita's resolve that is considered critical to Rama's eventual victory (*Pollet*, 69-72). Sita's total refusal to give in to Ravana's pleas, threats

and temptations, declaring “I would rather die than be unfaithful to Rama” both frustrates Ravana and weakens him (Menon, 314). No woman out of thousands had ever resisted Ravana, but Sita's rejection of him breaks his will (*Pollet*, 69-72). As an incarnation of the Goddess Lakshmi, the consort of Vishnu, Sita has the divine power to liberate herself. However, she restrains her own powers to ensure that Rama can fulfill his duty as her husband and protector by liberating her:

“Rama must come to Lanka and kill Ravana, whose power stretches deeper and farther than we imagine. Then dharma will be established on earth, and Rama will be a king, as he was born to be... Also, good Hanuman, you must forgive me, but I am Rama's wife and it isn't proper for me to cling to you while we cross the sea... Dharma is for Rama to rescue me himself.” (Menon, 326)

She protects both his reputation and his mission even while resisting Ravana (Blank, 323). This appreciation of Sita's role has transformed how she is regarded (Vanita, 232-234). Traditionally considered the ideal, dutiful and virtuous wife, Sita has progressively become a symbol of feminine power and equality (Blank, 148-151).

The greatest parallel in both epics lies in the fact that both Sita and Guinevere represent the force of love to their divine, “perfect” husbands. However, while Guinevere is alienated but never actually separated from her husband until the end, Sita is repeatedly separated from Rama, but is never alienated from his love. While Arthur forgives his wife, who has failed and betrayed him, Rama repeatedly tests Sita's love and chastity,

and ultimately banishes her in yet another strict adherence to the letter, but not spirit of duty. When Sita is liberated after Rama slays Ravana, he is cold towards her:

"Do not think for a moment, Sita, that I came for your sake. Your name is a stain on our family. It pains me to even look at you. You can go wherever you like. I have rescued you, as I swore I would; I you nothing more. No man of honor can take home a woman who has lived in his enemy's house for as many moons as you have." (Menon, 494)

Sita duly undergoes an *agnipariksha* (test by fire), walking through the flames as a test of her purity. Although this reunites Rama and Sita long enough for their triumphant return to Ayodhya and their coronation as its rightful king and queen, the specter of suspicion has not vanished. When told of the prevalence of gossip about Sita's virtue amongst the citizenry, Rama believes it is his duty as the king to make sure his people do not have to worry about a queen with tainted honor:

"Indeed, I did banish my queen for fear of what the people were saying about her. But then, my lord, I am a king, and my first and final dharma is toward my people." (Menon, 649)

Rama's decision to act upon rumors may be defensible to an extent in a human king. However, the incarnation of God struggles to repudiate falsehood when wearing a human skin, and acts as humans, with no powers of omniscience would. Rama orders Lakshmana to accompany Sita, who is now pregnant with Rama's sons, into the forest

and leave her at a hermitage (Menon, 599). That Rama did not himself tell Sita, despite his position of authority, represents both a distancing and a weakening of moral authority. When told of Rama's decision by Lakshmana, Sita does not curse Rama but resolves to prove her love and loyalty. One of the most controversial episodes in the epic, Sita's defiant courage is praised even as Rama is criticized for his treatment of his wife (Blank, 148-151).

Rama's banishment of Sita represents his own caution as a king against the entanglement and obsession with romantic passions, as seen in the example of his own father Dasaratha, but evidenced by us with the poem of *Geraint and Enid*. Like Arthur, Rama does not balance the duty of the king with a passionate love and loyalty to his wife. Rama does not believe that his love for Sita can blind him to the demands of the people, which if unresolved, may become cause of unrest and immorality. To demonstrate his impersonal love and loyalty to his people, Rama must turn away the source of his most passionate and personal love (Menon, 649-50). It is Sita, however, who repudiates both the aspersions cast upon her, and this doctrine of the separation of duty and love. While Guinevere admits, and accepts that she cannot love a perfect king like Arthur with romantic passion, Sita challenges both by loving Rama, and exposing his imperfections. When their grown sons return with her to Rama's court after many years, Rama declares he is prepared to accept her back as queen of Ayodhya if she can prove her chastity again (Blank, 330-334). Rather than accept this dutiful offer of restoration to her husband, Sita declares:

"If I have never loved any man but Rama, even in my mind, in my heart, my words, and my deeds, may my mother Bhumi Devi (Goddess Earth), who brought me into this world, now receive me back into herself." (Menon, 650)

The Earth duly opens before the court and consumes Sita. In declining to be reunited with her husband, Sita has exposed the imperfection in Rama's adherence to duty, which by affirming only the strict line, has ignored the wrongs done to his wife (Blank, 330-334). If Rama cannot act true to his love for Sita, and remains a prisoner of his duty as a king, there is no point to her returning to his side. Guinevere's betrayal and ultimate separation from Arthur represents the failure of a man aspiring to the divine to be true to his human-ness. Rama is similarly chastised by the loving defiance of Sita, representing the failure of the divine to ascend to love, and to human-ness. Sita must complete Rama, whose incarnation and existence is ineffectual without her (Blank, 323-325).

III. The Once and Forever Kings

In the differences of Tennyson's *Idylls of the King* and Menon's *Ramayana* from many older and traditional versions of the stories of Arthur and Rama, we confront changing perspectives on the world and how we see ourselves. The story of the reign of King Arthur and his Knights at Camelot remains a powerfully evocative image in Western literature (Lacy, 66-67). In India, the idea of *Rama Rajya* (Rule of Rama) describes a nation experiencing not only prosperity but true justice, peace and contentedness (Pollet, 170-75). Both Menon and Tennyson bring to life not merely the ancient world of kings, wars and magic, but the personalities that moved events and

hearts in age after age. It is in their retelling that newer stories are told.

Menon's *Ramayana* and its focus on the characters of Rama, Sita, Ravana and Lakshmana represent the voice of a modern India, which is questioning traditional beliefs about the role of women and men. Sita is no longer the mascot of the dutiful and virtuous, submissive wife, but a personification of feminine power and equality, and moral superiority to Rama (Vanita, 232-35). Tennyson's *Idylls* omits many elements of the Arthurian legend that would be considered vulgar or harsh in Victorian England. In Malory's *Le Morte d'Arthur*, Arthur reluctantly orders Guinevere to be burnt at the stake, from which fate, she is rescued by Lancelot and his allies (Greenblatt, Norton, 444-45). Tennyson also excludes many details about the rape of Arthur's mother, and his incestuous relationship with his half-sister Morgause. In doing so, Tennyson elevates Arthur to become the conscience of his people, and in doing so, bring forth their crisis of conscience – can we, the imperfect, ever find perfection as “natural?” Is the quest for the perfect man, and king, hopeless? Or do these newer ballads of legendary kings reveal to us the primal power of love that tests each time, each generation and its conception of itself?

King Arthur and King Rama represent the crisis of humanity, but from opposite approaches. Arthur is a man who aspires to become the divine king, while Rama is divinity himself attempting to be a man. Both triumph and fail, and are unraveled by that force that seems at time, so entirely human and yet so divine – love.

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Hadar Baranes

Sons of Hamas: About the Truth of the Self

Borough of Manhattan Community College

Panel: Multicultural Studies

Mentor: Professor David Bahr

Son of Hamas: About the Truth of the Self

I met him in June 2106, at conference at the United Nations headquarters in New York. The conference was held by the Israeli Mission to the UN, headed by Ambassador Danny Danon, with the objective to discuss strategic approaches for the fight against the Boycott, Divestment, and Sanctions (B.D.S.) campaign against Israel. Since at that time I was holding a student senator position at the Borough of Manhattan Community College student government, I was invited to participate in the conference entitled “Build Bridges, Not Boycotts,” as an Israeli college student leader. I asked my close friend Boutaina Assou, a Muslim Moroccan, to accompany me at the conference so she could grasp the Jewish standpoint of the phenomenon of the boycott against Israel.

He sat right next to us in his seat with a sign that read “Reserved.” I tried to recall where I have seen him before but I could not remember. Then he went up to the stage and gave a long speech—he exceeded his time to speak—but his rhetoric was infectious. He genuinely spoke his mind and heart about his point of view as a Palestinian in front of an audience full of Israelis. In his speech, he supported Israel against B.D.S and explained how this campaign, broadly supported by Palestine, is disastrous, but he did not speak against his people—the Palestinians.

It wasn’t the first time I heard such opinions. Many times people tend to talk about what they think the situation in the Middle East is like; yet, coming from an articulate young Palestinian man with such coherence and charisma, I knew his speech was more than

just words. There was an ideology behind those words, built over years of experience—a life story.

At the end of his speech, he stood on the stage smiling and waving at the audience like a rock-star before an encore. When the applause ceased, he finally introduced himself as Mosab Yousef Hassan, the author of *Son of Hamas*, and then it clicked—he is the Green Prince.

Mosab Hassan Yousef, alias the Green Prince, was born in 1978 in the Palestinian city of Ramallah in the West Bank. His nickname was given to him for being the elder son of one of the founders of the Hamas Palestinian organization that is associated with the color green.

His book *Son of Hamas*, written with the assistance of Ron Brackin, is a life narrative telling the story of Yousef himself. The story is narrated through Yousef's own eyes—from his childhood through his adolescence and along his way to becoming a young man—as he observes the world through the lenses of living with the struggle for independence and reclaiming the *occupied*¹ lands of Palestine. Yousef recounts his life in the shadow of terror organizations, political intrigue, and the ideological conflicts that broke his family apart. In his novelistic way, Yousef walks the reader through the paths he once walked, which lead him to being imprisoned, betray his family and his people, convert his religion, and eventually escape and seek asylum in the United States.

¹ The use of the term occupation is broadly used by Palestinians and less common in Israeli public discourse. The term is used in this text in appropriation of the subject's point of view.

Yousef exposes the readers to the way in which certain experiences in his life led to the formation of his selfhood and to define his role in society, through a novelistic and dramatized writing style. This is explained in *Reading Autobiography: A Guide for Interpreting Life Narratives*, by Sidonie Smith and Julia Watson, as what the German scholar Wilhelm Dilthey defined as bildungsroman. Smith and Watson explain the use of the novelistic self-person writing by contemporary autobiographical writers to “employ the intimate first person as protagonists confiding their personal histories and attempting to understand how their past experiences formed them as social subjects,”² and to apply a form of bildungsroman to their own life narrative.

I approached Yousef’s book seeking to reveal and understand the reflections of a man who finds out that, despite his love and respect for his family and nation, he does not feel obligated to blindly support and endorse his family and nation’s beliefs and ideologies; he is a man who loses everything for the sake of being true to himself and his beliefs. With this approach, it was beneficial to dissect his book by examining the application of autobiographical components in Yousef’s writing, and explore the way he uses these autobiographical strategies throughout his writing in order to formulate a life narrative. I do this by juxtaposing passages from Yousef’s book with passages from *Reading Autobiography: A Guide for Interpreting Life Narratives* by Sidonie Smith and Julia Watson.

Finally, many of the historical events that shaped Yousef’s life story, as a Palestinian, were the same events that shaped mine, as an Israeli. As a result, I look at the role of

² Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.10.

the Israeli-Palestinian conflict as it affected Yousef's formation of self in tandem with how the conflict affected my own selfhood through a comparison of Yousef's journey with my own as well as the insights I have drawn from it.

Understanding the Written Self:

At the beginning of his memoir, Yousef writes:

I STARTED MY LITTLE WHITE SUBARU³ around a blind corner on one of the narrow roads that led to the main highway outside the West Bank city of Ramallah. Stepping lightly on the brake, I slowly approached one of the innumerable checkpoints that dot the roads running to and from Jerusalem. "Turn off the engine! Stop the car! [s]omeone shouted in broken Arabic. Without warning, six Israeli soldiers jumped out of the bushes and blocked my car [...].⁴

The protagonist, as introduced to the reader in the first chapter of *Son of Hamas*, hardly evokes an autobiographical text. Although written in a first-person narration, certain stylistic features are closer to that of a novel. For instance, the plot unfolds in descriptive vein of a dramatic scene with quoted dialogue and metaphorical language. (I discuss the author's use of fictional devices in the section on memory and autobiographical truth, later in this paper.)

³ As capitalized in the original text.

⁴ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.1.

Eventually, in chapter two, the protagonist is identified with the name of the author, revealing the autobiographical nature of the text:

MY NAME IS MOSAB HASSAN YOUSEF.⁵ I am the oldest son of Sheikh Hassan Yousef, one of the seven founders of the Hamas organization. I was born in the West Bank city of Ramallah, and I am a part of one of the most religious Islamic families in the Middle East.⁶

Smith and Watson guide us to detect if a text is a work of life writing, rather than a novel, by comparing the protagonist to what they call the historical “I,” in which the protagonist is the same person as the living author who wrote the text. For example, historical documentation and testimonies of family and acquaintances can be used as evidence to confirm the existence of this historical “I.”⁷

Due to Yousef’s kinship to one of the prominent leaders of the Hamas organization, and all the more so because his own life story is being published, it does not take a great effort to verify his existence as the historical subject—the protagonist of the narrative. However, it is crucial to recognize that the historical “I”—the historical Yousef, specifically—is not the persona of Yousef as presented to the reader in his book; the historical Yousef is the tangible person living in the world, beyond the scope of the person represented and crafted in the written life story. The Yousef available to the reader is a character who resembles the historical Yousef, at certain times in his life, who the author decided to craft back to life through writing about the experiences and

⁵ As capitalized in the original text.

⁶ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.5.

⁷ Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.72.

circumstances in which the historical Yousef existed. This created character in a memoir is identified by Smith and Watson as the narrated “I”—simply, the reconstituted self which Yousef remembers himself to be from a certain time in his life.

Throughout the book, Yousef introduces several different narrated “I”s—i.e., recreated and reimagined selves—who represent his different personalities at different periods of his life. The story revolves mostly around Yousef’s character as a young man between the age of eighteen until his late twenties, significant years within his lifespan; therefore, this is the main narrated “I”—or narrated “Yousef,” for that matter. However, there is another narrated Yousef, the boy Yousef, whose character is presented to the reader as a reference to past occurrences relevant to the formation of the main character. This character of Yousef the boy is incorporated into the narrative as recursive flashbacks within a story that is primarily linear.

Yousef includes information about historical events that occurred outside and alongside his life in order to paint an image of the specific world, shaped within a specific time and space, in which he lived. Those background stories help the reader to grasp the historical reality through which the character lived, although it is not same reality in which Yousef lives today. His world today may, in some ways, resemble the world in which he used to live as a child, but his perception of it has certainly changed due to the passage of time, his altered surroundings, his relocation to a different country, and the process of maturation. For example, recalling his time as Yousef the boy, he writes:

There was so much violence that I actually became bored during those rare seasons when things were quiet. My friends and I started throwing

stones too—to stir things up and to be respected as fighters in the resistance.⁸

Understanding the distinction between the different characters of the narrated Yousef is important especially in order to be able to recognize the different ideological “I”s of Yousef. The concept of ideological “I,” according to Smith and Watson, is the historical and ideological notions culturally applicable to the narrator that help the reader to understand the effect of complex identities on the development of selfhood in the protagonist; for example, such identities could be one’s nationality, religious affiliation, sexual orientation, family, and so on.⁹ In the passage above, Yousef recounts an incident that occurred when he was a young boy. At that time, Yousef the boy believed that, by throwing stones at Israeli soldiers and settlers, he would be considered as a hero. He believed that the Israelis were his enemies, partially because of his upbringing, and the beliefs with which he was raised, and partially because of his historical life experiences: the way he felt as a little boy living under a military curfew in the *occupied territories*.

As Yousef’s story unfolds, the reader learns how, after being captured and imprisoned and exposed to Christianity, the narrated I’s ideology and beliefs are transformed. The change is so dramatic that it leads Yousef to collaborate with those who, at one point in his life, he had considered to be “the enemy,” for the sake of his creed. He writes:

WHAT I AM ABOUT TO REVEAL has, until now been unknown to all except a handful in Israeli intelligence. I am disclosing this information in

⁸ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.22.

the hope that it will shed a light on a number of significant events that have long been shrouded in mystery.

On the day of decision—the day I decided to do all I could to stop the madness—I began by learning everything I could about the activities and plans of Marwan Barghouti¹⁰ and the Hamas leaders.¹¹ I told everything I learned to the Shin Bet,¹² which was doing all it could to find these leaders.¹³

The ideological “I” plays a major role in Yousef’s life narrative as he tells his story in a form of a manifesto. In his writing, he claims how and why the events in his life, prior to the writing of the book, compelled him to change his ideology and beliefs. His writing appears as a reasoning to the controversial acts for which he would be seen by some as a traitor, betraying his “other” identities—as a Palestinian, as the son of Hassan Yousef, and as a Muslim. In an inscription letter dedicated to his family—and, in a sense, to all of his critics—he writes:

I know you see me as a traitor; please understand it was not you I chose to betray, but your understanding of what it means to be a hero. When

⁹ Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.76.

¹⁰ Marwan Barghouti is a Palestinian political figure and a convicted terrorist.

¹¹ Yousef’s father, Hassan Yousef, he himself one of the Hamas leaders.

¹² The Shin Bet a.k.a. the Israeli Security Agency (ISA) is an internal security service organization in Israel.

¹³ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.135.

Middle Eastern nations—Jews and Arabs alike—start to understand some of what I understand, only then will there be peace.¹⁴

The identity revealed to the reader in this inscription letter is what Smith and Watson call the narrating “I.” This narrating “I” is the constructed persona of the narrator, and the one who, through the “authority” of experience, recounts a specific history. In the context of the memoir, this recounted history is regarded as *the story being told*.¹⁵ For that matter, the narrating Yousef is the 32-year-old Mosab Hassan Yousef, a political asylum seeker in the United States, who escaped the West Bank after betraying his people and his family, and converting his religion from Islam to Christianity. It is this Yousef who is narrating the many different characters presented to the reader in the story. This narrating and ideological “I” is the Yousef who dictates the rhythm, syntax, and lexicon of the story; it is this Yousef whose education and wisdom are those reflected in the rhetoric of the narrative.

The Matter of Fact:

When the narrating Yousef narrates the different characters of Yousef and their ideologies, he relies on his recollections of experiential history. He tells the story from the standpoint of his recalled experiences, including the emotions evoked, the ideologies and beliefs held, and even segments of conversations remembered. Yousef makes a reference to some historical personas and events as well to help the reader to

¹⁴ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.v-vi.

¹⁵ Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.72.

attain a grasp of the world in which his narrated characters have lived. For example, he writes:

On Saturday, November 4, 1995, I was watching television when a news bulletin broke into programming. Yitzhak Rabin had been shot during a peace rally in Kings Square in Tel Aviv. It sounded serious. A couple of hours later, officials announced that he was dead.

“Wow!” I said aloud to no one in particular. “Some Palestinian faction still has the power to assassinate Israel’s prime minister! That should have happened a long time ago.” I was very happy for his death and the damage it would do to the PLO and its watered-down capitulation to Israel.¹⁶

The passage above demonstrates how personal memory and history factor into Yousef’s story. He recounts a well-known event in the recent past, which makes the authentication of the date of occurrence and the sequence of events easier; such documented events can be narrated with more accuracy. However, Yousef also recounts his feelings and thoughts: “It sounded serious” and “I was very happy” are examples to how he remembers to have perceived this event in the past—the way he feels about this event today could be completely different. This passage also conveys his ideology in 1995; the reader learns that 18-year-old Yousef is a somewhat militant young man with an explicit animosity towards Israel and the PLO.¹⁷ Such examples of

¹⁶ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.61.

¹⁷ The Palestine Liberation Organization, abbreviated PLO, is a Palestinian militant and political organization founded with the purpose of “liberating” Palestine with armed struggle, is thought by some to be a terror organization.

feelings and ideologies being recalled are subjected to the autobiographical truth of the narrator himself; readers must rely on this narrated truth since they have little to no possibility of verifying its authenticity. Yet, it does not matter how authentic an autobiographical emotional truth is; such truths are not necessarily factual truths and, therefore, even if such emotional truths might be refuted, the autobiographical truth of the memoir should not to be considered a deceit. As Smith and Watson write:

If we approach such self-referential writing as an intersubjective process that occurs within a dialogic exchange between writer and reader/viewer rather than as a story to be proved or falsified, the emphasis of reading shifts from assessing and verifying knowledge to observing processes of communicative exchange and understanding. It redefines the terms of what we call "truth": autobiographical writing cannot be read solely as either factual truth or simple fact.¹⁸

Smith and Watson point¹⁹ out the reflections of W.E.B. Du Bois in his *The Autobiography of W. E. B. Du Bois: A Soliloquy on Viewing My Life from the Last Decade of Its First Century*, about autobiographical memories being the combination of the “dreams” about what life has been from the distance of the years that have passed, and what impression an author would like others to adopt.²⁰

Hence, the autobiographical truth is the inner truth of the narrator; the way in which he or she perceives that reality has occurred. Although we can allow for the attempt by

¹⁸ Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.16-17.

¹⁹ Sidonie Smith and Julia Watson, *Reading Autobiography: A Guide for Interpreting Life Narratives*, p.16.

autobiographical narrators to tell past events as factual history, it is crucial to differentiate autobiographical recollected emotional truths from fictionalized writing within an autobiography.

In another example of memory being applied in the cited passage above from *Son of Hamas*, on page 61, I refer more extensively to quoted conversations. Throughout the story, the reader comes across numerous quoted passages of dialogue that attempt to embody the scenes the way Yousef believes them to be. The use of quoted dialogue in a life writing imbues the story being told with a fictional dimension. Since we expect the author's story to be written from his or her memories, in attempt to be as closes to reality as possible, it is slightly questionable when a life writer uses dialogues extensively.

The use of dialogue suggests that the author knows the exact words that have been spoken by all characters. This fictional device is appropriate to the novel, a story that is the product of the author's imagination; since the novelist is the creator of the story, he or she has the power to dictate what each character had said. However, in a life story, the author writes about conversations that occurred in real life, and since he or she must rely on memories, it is most certainly unlikely for the author to remember them verbatim. Aside from the extensive use of quoted dialogue, Yousef tends to shift from the position of a first person life narrator to the third person omniscient narrator suitable to fictional writing; for example, he tells the reader about the feelings and thoughts of other characters.

²⁰ W.E.B. Du Bois, *The Autobiography of W. E. B. Du Bois: A Soliloquy on Viewing My Life from the Last Decade of Its 2017 Beacon Proceedings* 428

On a particular day, they chose the house in which my father was hiding
[...]

“Could you please not bring the dogs in here?” the woman who lived there asked the soldiers. “I have little children”.

Her husband was terrified that the troops would find Hassan Yousef²¹ and arrest them for harboring a fugitive. So he tried to act normal and unafraid. He told his seven-years-old daughter to go and shake hands with the commander. The commander was charmed by the little girl and figured she and her parents were just a regular family who had nothing to do with terrorists.²²

This above passage is an example for the omniscience in Yousef’s writing—how could he possibly know about the thoughts, and feelings of the characters he describes? Recounting the thoughts and feelings of a commander that he never met weakens the authenticity of the story as whole. Therefore, although we can agree that the autobiographical truth is reserved to the ideology and perspective of the author, the concoction of scenes within the story by the use of such fictional devices do certainly harm the reliability of the author.

Since at times, while I was reading the book, the fictional features gave me the illusion of a novel, I felt compelled to verify some of the “truths.” I chose one scene that I felt all readers can easily verify with a simple internet search—and that is what I did.

First Century, p.12-13.

²¹ The author’s father.

²² Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.198.

When in his story Yousef writes about his time in prison in 1996, he tells about one specific incident in detail—the riot in Megiddo prison:

[...] Hamas told us to prepare to riot. [...] Some guys filled containers with water so that if the soldiers threw gas canisters, we could grab them and drop them into the buckets. [...] Soldiers aimed big pipes at us that spewed billows of yellow gas [...] I was trying to catch my breath when I saw the fire. The Islamic Jihad tent in Quadrant Three was burning.²³

An internet search yielded one particular result, an article from *Ha'aretz Newspaper's* website that describes an almost identical incident in the same prison in 2003:

Hundreds of Palestinian prisoners rioted [yesterday] in Megiddo prison in northern Israel. Military police broke up the riot by firing tear gas and water blasting. [...] The Palestinian prisoners were equipped with onions, hot water, and other measures to neutralize the effect of the tear gas. [...] The prisoners set several tents in one of the prison complexes and created a large fire.^{24 25}

There is no evidence on the internet, however, to the incident of 1996 told by Yousef in his book, and the similarity between the incidents may suggest that, rather than solely intending to tell his life story, Yousef enjoyed depicting himself as a hero of a battle legacy.

²³ Mosab Hassan Yousef and Ron Brackin, *Son of Hamas*, p.108-109.

²⁴ Amos Harel, "Palestinian Prisoners Rioted and Set Fire to Tents in Megiddo Prison", *Haaretz*. N.p., 2003. Web.

²⁵ My translation from Hebrew.

Insights About the Inner Autobiographical Truth:

Mosab Hassan Yousef's life story is a story about personhood, the prolonged battle to define his identity and find his inner truth, the sense of alienation, and the feeling of having a role in society. I could relate to this story in many different ways, such as the similarities of many events that we both experienced, and how they led us to gain a new ideology and dedicate our futures to follow through with our creed. Therefore, by studying his autobiographical work, I gained an interesting perspective about my life story. I could look back and analyze how certain events and people shaped my personality. I gained insight into how my beliefs and education led me to follow my inner truth, define my life aims, and pursue my desired life.

I was born in 1991, in the city of Eilat in the south of Israel, a product of the same historical reality as Yousef—the Israeli-Palestinian conflict. It is the same reality but with an entirely different truth. Although secular, I was raised in the Jewish heritage within a family that celebrated all Jewish traditions in its own secular way. I was taught to love my country and have the pride of being an Israeli, and it was clear to me from a young age that, when my time came, I would join the military in order to serve and protect my country—to protect it from “the enemy,” the Palestinians. Then I joined the military and served in Ramallah, the city of Yousef, and observed every day how life is like in the Palestinian territories. Through my military service, I gained an understanding about my life: I do not fight for any side of the conflict; I fight for the life I want to live. With yet pride and love of my nation, I understood that my country promotes several ideals that

does not align with my identity, and, therefore, it was hard for me to stay in Israel. I decided to leave for several years and shape my selfhood in a place—not surprisingly, the same place that Yousef found as well. And that is a place where one could be any self he or she chooses to be. Although, I initially moved into an Israeli community in Brooklyn, I quickly paved my way out. It was important for me to shape my identity among people of all types of different identities. And so, over my time in New York, I came to know that as much as I distinguish myself from many values and ideals that I grew up with, I still have strong ties to my country and my culture. The education I acquired over the years, and my parents' wisdom, encouraged me to stand with my truth and be who I want to be, rather than be who I am expected to be by the place and the culture to which I was born. This is why I admire Yousef for the path that he chose. I can relate to the enlightenment that he had about life that gave him the urgency to take action and change his fate, and that, by changing his fate, he will be more complete.

However, I am fortunate enough to have a supportive family, and although we have some disputes about our ideologies, we do all accept one another. Consequently, it is hard for me to know how much I would sacrifice to be faithful to my inner truth if, like Yousef, I had to risk my relationship with the ones dearest to my heart.

Conclusion:

The dramatization in Yousef's book is inevitable since it is almost impossible to tell about the life in the shadow of terror, on both sides of the conflict, without including

some very dramatic details. I find it hard to tell stories about my military service and the life under an ongoing war without receiving doubtful looks, and without doubting myself—am I exaggerating? Sometimes I have to stop and ask myself if things happened the way I tell them or maybe I exaggerated too many times that I started to believe my own additions to the real story. In both cases, I always come to the conclusion that the message I am trying to convey does not affect the meaning of the story I am trying to tell by adding some “spice” to it. And that’s why I believe that, although Yousef employs numerous fictional devices in his writing, and probably adds events that he never really experienced, Mosab Hassan Yousef’s story is brought to the reader in an authentic way. That his life story is worth being told to the public since it indeed has, even if only slightly, a role in shaping society.

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Abigail Wikner

Don't Be Such A Girl: Perpetuating Systems of Inequality

Montgomery College

Panel: Women's and Gender Studies/LGBT

Mentor: Dr. Nathan Zook

In the work, *Madness and Civilization*, author Michel Foucault commented the 17th century common belief that women's bodies were commonly seen as "penetrable...porous...[and] riddled by obscure but strangely direct paths of sympathy...[enclosing] a perpetual possibility of hysteria" (154). In 1871, Charles Darwin published *The Descent of Man, and Selection in Relation to Sex*, where he concluded that man held a "higher eminence, in whatever he takes up, than...woman - whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands" (327). In 1908, Sigmund Freud, father of psychoanalysis, surmised that women suffered from "penis envy" and were "as a rule less aggressive, defiant, and self-sufficient...[they] seem to have a greater need for being shown affection and on that account to be more dependent and pliant" (Krausz 3). Since the time that these theories were published, remarkable strides have been made for gender equality. However, inequalities continue to persist around the world across political, economic, and social spheres. According to sociologist Linda Lindsey, women and girls account for 77% of the 1.4 billion people living in poverty around the world, 66% of illiterate adults, 75% of the refugee population (along with their dependent children), 90% of reported eating disorders, and only 10% of the world's legislative seats (139).

What can explain these inequalities? This paper attempts to understand the source of gender variation, why these differences have persisted, and the positive and negative effects they have on both men and women. Some researchers point to biology as the only underlying factor for these differences. However, if this were the case, gender expression would be consistent throughout the world. This is not the case.

According to sociologist Anthony Giddens, there are several cultures where gender roles vary (278). For example, both men and women in the !Kung of the Kalahari Desert take an equal part in household duties and child-rearing (Giddens 278). In Indonesia, there are five gender identities among the Muslim ethnic Bugis (Lindsey 35). Based off this evidence, it appears that there is another factor that affects gender expression: society. Gender socialization is the process whereby male and female roles are learned via social factors such as schooling, the media, and family. It plays a crucial role in passing on gender expectations to the next generation. Although gender socialization is a process occurring throughout the lifespan, it is most concentrated in early childhood. Gender socialization in early childhood capitalizes on the slight biological differences between sexes, perpetuating a system of gender inequity, limited identity meaning, and potential for exploitation.

To reinforce this claim on the negative effects of gender socialization, I will begin by providing a biological overview of gendered differences in infants, discuss several agents of socialization and their effect on children, and conclude by reflecting on the effects of gender socialization on both men and women and what can be done to facilitate equality between sexes. My research incorporates both quantitative and qualitative data in the establishment and testing of my hypothesis, and is primarily focused on data from globally diverse case studies, such as the language of Japanese women, toy marketing by U.S. Disney stores, and the global television program *Cartoon Network*.

Before transitioning into a study of gender from a biological perspective, sex must be disentangled from gender. Sex refers to biological aspects such as

chromosomes, hormones, and genitals, whereas gender is the “state of being male or female”, the psychologically, socially, and biologically constructed ideals of what is masculine and feminine (Oxford Dictionary). According to Wesely, “Gender refers to the ways individuals manage the activities and attitudes prescribed for their sex category” (9). From birth, boys and girls learn the appropriate way to act, based off their sex.

Sex is determined at the moment of fertilization, when one sperm carrying an X or a Y chromosome meets an egg with one X chromosome, initializing the development of a male (XY) or female (XX) zygote. Around the sixth week of pregnancy, sex-determining regions of the X and Y chromosomes begin to activate genital development. Estrogen currently has no effect on the developing female embryo due to the presence of alpha-fetoprotein, which acts as a shield. The brain begins to develop around the fifth week of pregnancy and synaptic connections begin to form between dendrites and axons. According to Dr. Lisa Eliot, male and female fetuses develop in almost an identical fashion, except for the following: boys are larger in size, yet girls move their mouth more and their organs mature faster (45). Because boys vital systems develop at a slower rate, they are more vulnerable to their environment (Eliot 47). Women pregnant with boys are three more times likely to miscarry than if they were carrying girls (Eliot 47).

Once born, male and female physical and cognitive developments continue in a similar fashion as *in utero*. Boys are typically larger and heavier, while girls are more physiologically mature. Dr. Eliot states, “Boys and girls enter the world with slight differences in social and emotional styles, but in reacting to these differences, parents end up training boys and girls in different ways” (78). Although dendrite and axon

growth begins *in utero*, the process continues at a rapid pace after birth. According to a study by Dr. Bryan Kolb, dendrites are able to respond to new experiences within minutes by forming new synapses, or by using synaptic pruning to remove inactive connections. The brain shows remarkable ability to change in structure and function over time due to the presence, or lack, of environmental stimuli, particularly in early childhood. Environmental stimuli includes events such as psychoactive drugs, parental-child relationships, peer relationships, early stress, diet; as well as sensory and motor stimuli. For example, parents will act as an environmental stimulus by exercising their child's gross motor skills during a game of catch - usually with their son. This leads to a widening gap between gross and fine motor achievements between sexes. Boys are generally fussier, leading to a potential negative response where parents "send a negative message to boys about their expressiveness, deterring further social interactions and contributing to the later suppression of emotion that is more characteristic of boys' development" (Eliot 75). Girls tend to be more empathetic than boys, not necessarily because they are pre-wired for superior empathy, but primarily because their brain is more mature compared to boys at their age.

Gender socialization has a significant impact on the brain during the time of its most acute plasticity. Although the initial differences between sex are slight, the socialization process capitalizes on these variations and instills into the child how he or she ought to act. Primary gender socialization occurs within groups such as family and close friends, who teach the child how to fit into society. Secondary or continuing gender socialization occurs within groups such as school, government, media, and recreational activities. Although these norms can deviate across cultures, they are

always intertwined with a society's ethnic, cultural, and religious values. The process by which children learn these categories arise through various agents of socialization, which act as environmental stimuli that teach the brain which synapses to use and which to prune back. For the sake of brevity, this paper will focus on three: language, toys, and television.

Language is an often overlooked, yet extremely critical, aspect of gender socialization. According to Linda Lindsey, "A child's emerging gender identity is intimately connected to the way words are perceived" (80). In the English language, all people are male until they are otherwise noted as female. The word *men* is both used to exclude and include women, whereas *women* would only refer to that specific sex. Linda Lindsey states, "The generic use of *he* is presumed to include all the *shes* it linguistically encompasses" (80). Gendered language is also evident in titles of address. "Mr." applies to all men, married or unmarried. But for their female counterpart, their title is dependent on their relationship with a man, whether "Miss" or "Mrs.". When women are married, their maiden names are replaced by their husband's. In some cases, a woman loses her full name and will be referred to by the name of her husband accompanied by a Mrs. (i.e. Jane Doe becomes Mrs. John Smith). When it comes to common names, girls often take on boy's names (i.e. Sammy, Spencer, Jackie), whereas boys rarely transcend gender boundaries and take on female names. Studies have shown that men and women also use language differently. Females are more likely to use qualifiers, tag questions, intensifiers, and other modes of expression that comes across as polite and indirect (Lindsey 86). Men are more likely to use profanity, speak more often, use direct speech, and often interrupt (Lindsey 86). A definitive

example of gendered language is found in the speech style of Japanese women. Japanese women's speech is highly formal and polite, rarely using profanity and interrogatives, and making few assertions or requests (Lindsey 92). Differences in language go beyond pragmatics, even affecting syntax. Japanese women use special terms of self-reference, pronouns, and other articles of speech that differ from their male counterparts (Lindsey 92). For example, women use verb endings that render their sentences indirect and less assertive. Lindsey notes that by following these linguistic patterns, "the image of a Japanese woman that emerges is one who lacks self-confidence and is timid, overly polite, formal, and tentative in her speech" (92). These speech patterns make it difficult for women to take on nontraditional roles outside of the home, such as in the government. According to Elise Hu, women hold less than fifteen percent of seats in the Japanese Parliament.

Are these merely insignificant speech variations, or are there broader implications that subtly, or perhaps not so subtly, transmit sexist notions? Linda Lindsey argues that gendered language reflects and reinforces the subordination of women as girls are socialized into less powerful roles through the compelling influence of language (95). In Jean Piaget's stages of cognitive development, during the preoperational and concrete operational phase of age two to twelve, children experience difficulties thinking abstractly and remain tied to concrete, physical reality (Feldman 209). These limitations leave children unable to look past the discriminatory structure of language.

Another powerful source of socialization in early childhood are toys and games. According to Joseph Hawes, despite variations across culture and time period, toys are a universal aspect of childhood and there is no known culture in which children do not

play (6). Toys have been excavated from ancient civilization sites and mentioned in the earliest literature. According to Dr. Eliot, children around the world display preferences for gender typed toys around their first birthday (105). Boys are most likely to choose toys such as cars, weapons, and balls, whereas girls opt for baby dolls, beauty sets, and kitchens. Girl toys encourage domesticity, beauty, and social relationships, whereas boy toys encourage independence, strength, and adventure. To study this phenomenon, a research team led by sociologist Carol J. Auster conducted a study on 410 toys listed for boys and 208 toys listened for girls, as well as 91 gender neutral toys that were listened for both sexes, on the U.S. Disney store website. She coded each toy based on three characteristics: overall bold or pastel color palette, the predominant color of the toy, and type of toy (action figures, dolls, stuffed animals, etc). Based off tabular analysis and chi-square tests, the researchers found that boy's only toys were typically bold colored (red, black, brown, or gray), and mainly consisted of action figures, building toys, weapons, or vehicles, whereas girl's toys were pastel (pink and purple) and included dolls, beauty, cosmetics, jewelry, and domestically-oriented objects (Auster 1). The 91 toys that were labeled for both sexes mainly resembled the characteristics of boys' toys, because boys are more hesitant to cross gender lines and play with toys that are labeled "girls only" (Auster 1). Although this study was limited to toys made in the U.S. and does not prove that color or type of toy is common to all cultures, it does shed light on gender stereotypes held by a major toy company.

Toy companies are not the only party responsible for these gender stereotypes. Studies have revealed that children are more likely to choose toys that are labeled for their gender. A study in Sweden revealed that 98% of boys chose stereotypical boy toys

(Eliot 106). Another study on 261 pre-school age girls and boys in Romania witnessed the same phenomenon and determined that this increase was due in part to the growing influence of the social environment in promoting stereotypes (Tocu 5). Parents and researchers alike wonder if boys and girl naturally choose the toys fit for their gender, or if there are social factors at play. According to Dr. Eliot, a study on six month old babies found that boys and girls did not show sex-typed preferences and partiality gradually emerged as they grew older (107). Another study by psychologist Judith Blakemore at Indiana University found that girls from more traditional homes showed a greater preference for domestic toys (kitchens, dolls, etc.) than girls raised in egalitarian households (Eliot 130). Based off this information, it appears that preferences for gender typed toys are not necessarily hard-wired, but may be a combination of both genetic predisposition and socializing forces, particularly from parents. Perhaps parents do not directly state their preference for their child's choice of toy, but their own actions serve as an influential model for their children.

As gender identity becomes increasingly secure, preference for gender typed toys grows. As these divisions expand, they can have negative effects on both sexes. Childhood play is an important outlet for children to use their creativity and build physical, cognitive, and emotional strength as they learn to interact with their surroundings. When boys and girls are socialized to play with gender specific toys, they miss the opportunity to learn skills from other types of toys. Playing with dolls and other household items encourages children to learn nurture, empathy, and emotional communication. Typical male toys help with the development of spatial, gross, and fine motor skills. According to Blakemore and Centers, "If children played with greater

variety of types of toys, they might well develop a wider repertoire of cognitive, physical, and social skills" (Auster 12).

While toys have been a powerful source of socialization for centuries, television has emerged as a pervasive and influential disseminator of society's values and norms. Television caters toward children in popular programs such as Disney Channel, Cartoon Network, Nickelodeon, TV Land, and Discovery. Television programs geared toward children portray greater gendered stereotypes than adult shows by promoting normative ideas of masculinity and femininity (Lindsey 374). To research this phenomenon, Shumaila Ahmed carried out a study on gender portrayals on Cartoon Network, a global children's television program. Cartoon Network airs in multiple languages in countries such as Japan, Pakistan, Australia, Taiwan, Korea, Malaysia, and the United States. From January to July 2013, Ahmed examined the representation of male and female characters in popular cartoons such as Ben 10, Scooby Doo, Tom and Jerry, Pokemon, Power Puff Girls, and Batman. The results revealed overwhelmingly dominant male narratives and strongly gender stereotyped characters (Ahmed 5). In shows targeted at both male and female audiences, 70.4% of male characters were shown as strong, intelligent, and powerful, whereas only 29.6% of females displayed those same traits (Ahmed 6). Furthermore, 90% of females were represented as sexy and attractive as opposed to only 10% of men (Ahmed 6). Ahmed's study followed several others that displayed the same results, including England's 2011 study on Disney princess movies and T. L. Dietz's 1998 study on children's video games. Both of these studies found that male characters were more dominating, while female characters were objectified and portrayed as passive, useless, yet attractive

(Ahmed 2). Males tend to be the main heroes who solve the crisis and save the helpless heroine. Jennifer Wesely notes another phenomenon in children's programs where characters such as animals were assumed to be male, "unless they are specifically marked as female through the process of sexualizing their appearance (e.g. hair ribbons, long eyelashes, colored lips, wasp-waists, long legs, short skirts, high heels)" (135). Unfortunately these representations are highly influential in the flexible minds of children, impacting their expectations for how men and women behave and the meaning of their own gender identity.

Television programs are not complete without commercials: frequent interruptions of unsolicited advertisements of the newest, most efficient, and coveted products and services. Advertisements are not just present on television, but infiltrate our daily life on highway billboards, computer pop-ups, and even on the subway on your commute to work! Advertisements are not only designed to present a product, but also communicate how that product could be used in the consumer's life, such as achieving a thinner body, sexual appeal, popularity, or affluence. In 1960, Dr. Jean Kilbourne began research on the effect of advertisements on consumers and how they contribute to several public health issues such as violence against women and eating disorders. Since then, Dr. Kilbourne has received numerous awards, spoken at the majority of U.S. college campuses, written several books, and produced films based off the results of her studies such as a four part series titled *Killing Us Softly: Advertising's Image of Women*. According to the film, the majority of advertisements geared toward women display unattainable body ideals that have revolutionized the way women view themselves in comparison. The average model is 5'11 and weighs 117 pounds

(Schacter 330). However, the average woman is 5'4 and weighs 140 pounds (Schacter 330). In fact, the “ideal” body type portrayed in advertising is possessed naturally by only 5% of women (ANAD). In the U.S., 69% of girls in 5th-12th grade reported that magazine pictures influenced their idea of the ideal body shape and 47% of girls in 5th-12th grades reported wanting to lose weight because of magazine pictures (ANAD). Becker explains that, “Consumer culture and media imagery have a pervasive and powerful influence on girls at a critical developmental stage...girls are socialized to cement and signal identity through visual symbols that include visible consumption of prestige goods or a particular body presentation that conforms to cultural aesthetic ideals” (3). In societies with limited food availability, such as Africa, a larger body mass is considered ideal as a sign of wealth. However, “contact with the west can transform body image”, as in the islands of Fiji, where television exposure altered girl’s ideal body image (Freedman 213). We spend hours bombarded by advertisers, going to whatever lengths to sell their products. Tabloids line the aisles of grocery stores, mocking celebrities for their weight gain and featuring the new fad diet for fat loss. Visual media pushes across an avalanche of messages that in order to be successful, rich, and attractive, you must be thin.

Advertisements do not only push forward standards for an ideal body, they also communicate how that body should be used. According to *Killing Us Softly*, women usually take up poses that are weaker, rarely make eye contact with the camera, and are presented in a sexually provocative manner. Sexualized images of women are often used to sell products primarily geared towards men, such as guns, machine tools, and industrial equipment. Women are dressed up to look like young girls, whereas young

girls are often wearing clothes much too mature for their age. Body technologies such as liposuction, breast augmentations, and Botox are presented to promote society's notion of an ideal body type. Sexualization in advertising is a pervasive and dangerous aspect of the industry. In Kilbourne's book *So Sexy So Soon: The New Sexualized Childhood*, the author discusses the aggressive agenda of pornification in media. Young girls are taught that the sexualized body is an integral aspect of female identity and even a type of currency with which to gain favoritism or rewards. According to Jennifer Wesely, "Girls work hard to attain the look, behavior, demeanor, attitude, and comportment that their gender socialization dictates...girls are directed onto the treadmill of appearance obsession, only to go nowhere, for this fixation with a sexy look grants no real power to the girls. The treadmill moves faster; they expend more energy, time, and resources toward achieving this image at the expense of other areas of development" (136). An example of this "treadmill" lies in the rise of plastic surgery. Women make up 86 percent of the 7.4 million cosmetic surgeries in America (Freedman 211). Wesely goes on to further acknowledge that although gender socialization has occurred since the earliest civilizations, media has caused "its price on the soul to be ratcheted up exponentially" (136). Girls are painted as pornified sex objects as our society becomes increasingly saturated in sexual imagery. Kilbourne's film includes numerous examples of clothing brands such as GAP and Calvin Klein depicting eroticized violence towards women, just to sell the latest style of denim jeans. According to Wesely, "A society so inundated with sexual imagery, so complacent about and even complicit in the framing of girls as pornified sex objects, is one that automatically puts girls at risk for future harm...the more desensitized and inured we become to these

constructions of young girls, the more such heinous crimes are trivialized or ignored even as they escalate" (66). It is all too easy to justify violence when the individual being violated is dehumanized and objectified. Sexualized commercials, and resultant media pressure, are not only present in Western societies but have disseminated around the world as in Japan, where a study of Japanese soda advertisements in 1987 found that one in four ads showcased women in bikinis (Freedman 210).

These societal norms result in disastrous consequences for young individuals in a turbulent period of development. According to Jean Piaget's theory of cognitive development, as children reach puberty, they advance from the concrete operational stage to the formal operational stage, characterized by the ability to understand logic, hypothetical thought, and abstract concepts. They learn how to interpret human behavior by observing the way others appear and interact. However, this newfound skill is also accompanied by insecurities as adolescents wonder what other individuals are thinking about them and if they measure up to the example of those around them. Jean Piaget refers to this as the imaginary audience, when adolescents believe that others are watching and judging them at all times, leading to debilitating self-consciousness (Feldman 400). Of course, puberty is also accompanied by dramatic physical changes such as weight gain, oily skin, acne, and, of course, development in sexual organs. These changes can lead to heightened insecurities and dangerous behaviors in order to cope with a lack of self-esteem. Advertisements aid this process by depicting unattainable body types and absurdly sexualized models. Adolescent girls in particular struggle with the intense pressure from media outlets as they attempt to understand their own identity, specifically regarding their sexuality. According to Jennifer Wesely,

“[Young] girls...struggle with identity meanings. They hunger for some real information about their bodies and their sexuality. Yet comprehensive sex education is scarce across the country. In the past several decades, most federally funded sexual education programs have focused on abstinence and provided girls with little actual information about their sexuality” (137). A 2014 report by US Centers for Disease Control and Prevention (CDC) found that less than half of high schools in the majority of U.S. states teach the essential sex education topics recommended by the CDC (17). A lack of accessible, useful information in sexual education programs lead individuals to turn to the media for sexual education, a skewed and potentially damaging source. Girls learn from an early age that their sexualized bodies are an integrated part of the identity. According to an APA report, this early sexualization is linked to eating disorders, low self-esteem, and depression (Wesely 57). Girls are more likely to become victims of sexual, emotional, and physical abuse. According to the Global Health Organization, 35% of women worldwide have been the victim of sexual or physical abuse, including rape, female genital mutilation, honour killings, and trafficking (9). These statistics do not take into account the vast majority of women facing other types of harassment such as street whistling, leering, unwelcome comments, and obscene gestures. In the United States alone, an estimated one in five women are raped at some points in their lives with statistics potentially higher, as rape is the most under-reported crime (National Sexual Violence Resource Center 2).

Although this discussion has primarily focused on the effect of socialization on women, men also experience negative psychological, social, and physical consequences. According to sociologist Emily Kane, “social expectations for masculinity

that emphasize power, toughness, aggression, and emotional reserve all lead men toward a narrow ideal that discourages emotional expression, nurturance, productive conflict resolution, human intimacy, and personal well-being, and even results in shorter life spans for men” (6). Agents of socialization discussed earlier such as language, toys, and media teach men to be emotional stoics and never to admit weakness. However, studies prove that men do experience deep emotions and often suppress their feelings in order to conform to society’s expectations. According to the American Foundation for Suicide Prevention, men die by suicide 3.5 times more often than women. Suicide is most commonly linked with depression, a serious emotional and mental condition. Because men are unlikely to seek help for their depression, they resort to extreme measures such as suicide. Not only do men face emotional difficulties, the emphasis on male economic achievement can lead to an acute pressure on men to succeed in the workplace, leading to potential disillusionment if these expectations are left unfulfilled. Finally, media representations of strong, chiseled, powerful male bodies can result in negative body images and unhealthy behaviors such as steroid abuse and excessive exercise.

This paper has been an effort to analyze the roots and discuss the effects of gender socialization. This is not an attempt to disregard biological differences between sexes, but merely to understand how these differences are taken advantage of by society. As Lisa Eliot states, “We need to be aware of gender but also of the imprecision of stereotypes” (313). Based off evidence from studies such as the submissive nature of female Japanese language, gender stereotypes in U.S. Disney toy stores, and research from Jean Kilbourne’s *Killing Us Softly* series, it is evident that gender socialization in

early childhood capitalizes on the slight biological differences between sexes, perpetuating a system of gender inequity, limited identity meaning, and potential for exploitation. Gender is not a result of solely nature or nurture, but instead a complex interaction referred to as an “epigenetic inheritance”, where the environment acts on genes and influences their expression. The male and female brain are significantly different by the time of adulthood, but it is primarily a result of socialization in early childhood. Essentially, your brain is what you do with it. Gendered stereotypes convey the notion that gendered differences are immutable due to the presence of biological factors such as hormones. However, brain composition is incredibly adaptable and is able to adjust in response to environmental stimuli.

If we underestimate and ignore the effects of gender socialization, we will ignore the social inequalities it perpetuates. We will ignore the wage gap, daily street harassment, eating disorders, suicide rates, poverty, and sexual abuse that occur under the ideology that “boys will be boys”, that crying is for girls, and that a woman’s place is in the home. Society is failing boys and girls, and unless measures are taken to actively resist, the trend will continue. Although national governments do play a role in creating an environment where equality is encouraged, the solution does not just lie in a new law or legislation, because it is impossible to legislate an attitude. According to Jennifer Wesely, girls and boys must be taught to recognize the “artificial nature of gender socialization *themselves*” and be empowered to “resist and reshape [stereotyped] roles” (101). As we have discussed, media is one of the prime culprits for reinforcing these gender stereotypes. As long as media continues to promote gendered stereotypes, children must learn how to respond to the biased messages they receive. Children must

also be offered outlets for healthy growth where girls are taught to be leaders, physically active, and assertive, while boys are taught how to communicate, be relational, and creative. Finally, girls and boys need access to sexual education that goes beyond biological facts and calls for abstinence, but instead teaches them healthy ways to consider their sexual identity and use their bodies. This is an area where local and national governments ought to step in and play an active role in funding and providing these important programs.

The path to gender equity has been long and hard fought. Although significant progress has been made, men and women around the world are left unable to reach their potential. Women continue to be marginalized and left as victims of sex trafficking, poverty, and harassment. As Jennifer Wesely states, “This is not just a “girl problem”. It affects and reflects every single one of us...families, education, children, the state of our nation, our political climate, our economic status, and our position in the global lens. We continue to reduce people to their lowest common denominator, their one-dimensional, superficial meanings, and reproduce these for our consumptive entertainment and enjoyment” (145). Every girl and boy deserves the chance to achieve their highest potential, regardless of gender, racial, and economic barriers. If this can be achieved, the result would be a richer, more diverse, and balanced society where men and women have the freedom to exercise their unique gifts and talents to the best of their ability.

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