

# *Oscillations*



2017

# *Oscillations*

## *A Journal of Exploratory Research and Analysis*

The articles published here reflect the Capstone Research efforts of graduating seniors in the Stanislaus State University Honors Program. They present projects conceived from personal academic interests and mentored by faculty members familiar with the research and scholarship driving these efforts of discovery.

As this research is born of the intersection of personal interests and scholarly preparation, each student's work oscillates between their understanding of the nature, significance, and impact of the topic on their life and the world around them. In the course of their research, students are confronted by a world of data, questions, critiques, and alternate visions that often take them by surprise. They come to realize that scholarly inquiry acts not as a perfectly polished mirror that reflects a hypothesis back virtually unchanged, but rather as a prism that shatters their current thinking into constituent parts that travel in their own directions before coming back together in unanticipated ways.

When they rise to the challenge, students reflect on these altered visions and use them to bring their hypotheses into greater alignment with the world beyond the looking-glass. Sound research emerges from *growth* in perspective, not stasis, and the goal of good mentoring is to cultivate an openness to the topsy-turvy, dizzyingly disorienting results their work may bring. We thank our faculty mentors (more than 100 so far), who have worked with our Capstone students during the past seventeen years to help them frame, conduct, and enthusiastically embrace the results of effective research projects.

No matter how it is judged by history, 2016-2017 was experienced by many in the U.S. as a year of tension—a tightly strung wire vibrating at frequencies more deeply felt than heard, oscillating between extremes with a force and intensity unglimped in its resting state. While none of the authors in this issue addresses politics head-on, nearly all echo or otherwise engage the oppositions, tensions, conflicts, uncertainties, new normals without norms, and, most importantly, the sheer, percussive energy unleashed across the 2016 political landscape are echoed or otherwise engaged by nearly all.

Yamaguchi reminds us of the importance of basic scientific research, and the vast amount that remains to be done to understand even a small fraction of the natural world around us. Bishel, Blansit, Hilberg and Pepito delve into the very core of human knowledge, asking tough questions about how we know what we (think) we know, how our biases influence not only our conclusions but also how we retrieve, process, and act on information, how preconceptions about people work in a circular fashion to define both them and our preconceptions of them, and even how the rational is fundamentally emotional at the molecular level. A topsy-turvy, uncertain world, indeed! Itzep-Lopez, Glidden, Cheek, Mays, Landeros, and Mendoza incisively re-center and empower those others would marginalize, clearly demonstrating that the so-called weapons of the weak are sharp indeed. Southern, Muniz, Olivera, and Martin interrogate the digital world as both a possible source and potential palliative of this tension, inviting, for example, the reader to ask if the aesthetics, escape, and entertainment Southern argues eSports offer balance the temptation to piracy Martin explores, the behavioral addition Muniz poignantly asserts the ubiquitous smartphone provides, and the stifling of creativity Olivera attributes to expanded copyright law. Rooker and Tanis look to the lessons of history to remind us that not even the past is stable, interrogating long-held historical “truths” to show that our understanding of history is dynamically created in the present. This returns us full circle to Bishel's reworking of attitudes surrounding Thomas Kuhn's *The Structure of Scientific Revolutions*, demonstrating the utility of understanding that revolutions can come with a little “r” and that the world can carry on as before for those not caught up in the immediate swirl of change.

The authors in this issue remind us that liminal space is by definition unsettled and unsettling, but it is also a transitory state of entropic energy out of which new orders emerge. The authors in this issue are doing the hard work necessary to sit amid the chaos, tolerate and even grow from the uncertainty, and set the cornerstones of new orders. We look forward to the worlds they'll build.

## ***Acknowledgements***

Special thanks to Tim Held (Faculty Research Librarian), Andrew Dorsey (English), and Suditi Gupta (Psychology) for providing substantial critical and editorial feedback in HONS 3500 and 4200 to students working on 2016-17 Senior Capstone Research Projects.

### **Faculty teaching in the Honors Program or Serving as Research Mentors**

Ellen Bell (Anthropology)	Richard Randall (Political Science)
Ritin Bhaduri (Biology)	Jennifer Richmond (Biological Sciences)
Tom Carter (Computer Science)	Jennifer Ringberg (Anthropology)
Andrew Conteh (Political Science)	Katherine Royer (History)
Jennifer Cooper (Biological Sciences)	Jeffrey Solomon (Political Science)
Andy Dorsey (English)	Kathryn Steele (English)
Jeffrey Frost (Anthropology)	Kyle Stubbs (Communication Studies)
Suditi Gupta (Psychology)	Michael Tumolo (Communication Studies)
Tim Held (Library)	Jim Tuedio (Philosophy)
Therese Lunt (History)	Fela Uhuru (Ethnic Studies)
Alexander Markov (Communication Studies)	Arnold Webb (English)
Kenneth Mashinchi (English)	Katrina Weber (English)
Chris Nagel (Philosophy)	Andy Young (Philosophy)

### **The Honors Capstone Project**

*Seniors in the Honors Program are encouraged to tackle complex problems using methods, insights and knowledge drawn from relevant disciplines. Honors Program faculty and capstone research mentors offer critical feedback and guidance along the way. The main objective is for students to explore, gather, and analyze information effectively, and to share their reflections on the implications of what they have discovered. Group discussions help to promote thoughtful questioning and critical analysis. The primary goal is to communicate knowledge, judgments, and original perspectives cultivated on the basis of careful inquiry, exploration and analysis.*

---

#### **A Publication of the CSU Stanislaus University Honors Program**

California State University, Stanislaus  
One University Avenue  
Turlock, CA 95382

Cover Image: Taiga Yamaguchi & Ellen Bell  
Journal Design: Ellen Bell

Tel. (209) 667-3180  
email. [honors@csustan.edu](mailto:honors@csustan.edu)  
url. [www.honors.csustan.edu](http://www.honors.csustan.edu)

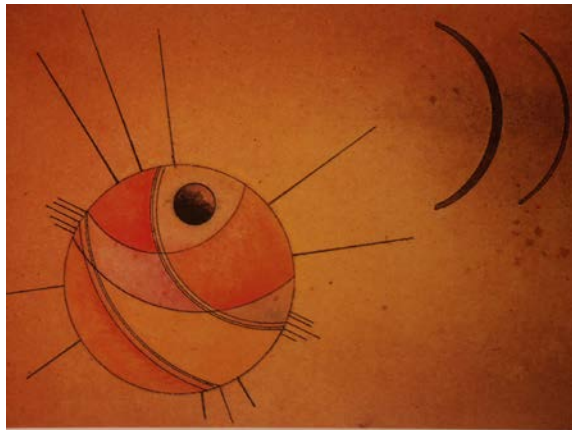
This publication was supported by funding from the  
**Stanislaus State Instructionally Related Activities Fund**

Articles © May 2017 HONS 4200 & 4960

all rights reserved

## ***HONORS PROGRAM COMMUNITY STATEMENT***

The Honors Program at CSU Stanislaus is a community of scholars bound together by vital principles of academic openness, integrity, and respect. Through focused study and practice involving exploration and discovery across a variety of disciplines, the Honors Program upholds these principles of scholarly engagement and provides students with the necessary foundations for further research and inquiry.



Our interdisciplinary curriculum is integral to this work and is intended to facilitate creative understanding of the irreducible complexities of contemporary life and knowledge. Personal and intellectual honesty and curiosity are essential to this process. So, too, is critical openness to difficult topics and respect for different perspectives, values and disciplines. The Honors Program aims to uphold these virtues in practice, in principle, and in community with one another.

## Table of Contents

### **Exploring the biology of the Siberian Prawn, *Palaemon modestus***

by Taiga Yamaguchi

### **A contemporary assessment of Thomas Kuhn: The detection of gravitational waves as a Kuhnian revolution**

by David Bishel

### **Misconceptions in stem cell research: The need for clarity through education**

by Vikki Blansit

### **A circular process for understanding humanity: The interdependency of group narratives and individual narratives**

by Joslyn Hillberg

### **Children's behavioral response during preparedness activities**

by Astrid C. Itzep-Lopez

### **Learning disabled and gifted: The social and emotional aspects of inclusion**

by Aubrey Glidden

### **The role of student anxiety in perceiving instructor behaviors**

by Griffin Cheek

### **Repositioning criminal justice in the American settler colony**

by Elijah Mays

### **Exploring the influence of drag in the Central Valley LGBTQ community**

by Stephanie O. Landeros

**To be a woman: Gender and the death of the Mirabal sisters**

by Jynessa Mendoza

**The myth of Cleopatra: Shrewd sovereign or wanton woman**

by Rebecca Rooker

**The divinity of Jesus in early Christian thought: A historiographical approach**

by Joshua Tanis

**The rise of eSports: A new audience model and a new medium?**

by Neal Southern

**Smartphones: The weight in our pockets**

by Mario Muniz

**Extended copyright curtails creativity: How the Copyright Term Extension Act limits writers**

by Tatiana Olivera

**A digital crescendo: The unsustainable state of the digital textbook market**

by Brett Martin

**Bias in the meeting of depths and shallows: Search engine algorithms and the untapped power of the brain**

by Emelie Pepito

# Exploring the biology of the Siberian Prawn, *Palaemon modestus*

Taiga Yamaguchi \*

B.S. Candidate, Department of Biological Sciences, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 19 April, 2017; accepted 19 July 2017

---

## Abstract

The Siberian Prawn, *Palaemon modestus*, is an invasive species recently introduced into the San Joaquin Delta, Central California, through ballast water from Southeastern Asia. They are now the most dominant shrimp species in the area. Previous studies have shown their morphometric and current distribution, but very little is known about their ecological profile. In this study, we evaluate their salinity tolerance level from 0ppt to 72ppt and analyze their salinity regulation method using a microsyringe and an osmometer. By determining these two factors, we aim to predict their future distribution pattern to make appropriate conservation plans for any native species that may be threatened by their dispersal. In our pilot study, they exhibited no behavioral issues in 0ppt environment but are susceptible to ammonia poisoning caused by failed nitrogen cycling due to the lack of Ammonia Oxidizing Bacteria (ABO) and Nitrobacter. Future mortality from ammonia poisoning in a laboratory setting can be prevented by mixing in bacteria pills in the tank or by replacing a third of the tank water with the water from the capture site.

*Keywords:* prawn, biology, environment, ecology, conservation, salinity

---

## Introduction

Organisms that are not native to the region and may cause harmful effects to humans or to the ecology of the native species in that area are considered invasive species (Castro et al. 2017). The San Francisco Bay delta has been prone to introduction of many invasive species (Nichols et al. 1986). Many such species distribute themselves further upstream through San Pablo Bay, Suisun Bay, the Sacramento River, and the San Joaquin River. The Siberian Prawn, *Palaemon modestus*, is an invasive species recently found in all of the aquatic environment listed above (Brown and Hieb 2014), and is thought to have been introduced in ballast water from its original habitat, which extends from Siberia down to Southeastern Asia (Holthuis 1980). Previous studies of the population of Siberian Prawn in California have been focused primarily on their morphometric and current distribution, but little is known on their overall ecological profile.

Animals are classified as either osmoregulators or osmoconformers depending on how their body responds to the environmental salinity level. Osmoregulators maintain the salinity of their extracellular fluid at a constant level regardless of the environment, whereas osmoconformers allows their osmolarity to match the environment (Hill et al. 2012). Most birds, reptiles, and mammals are osmoregulators, but other vertebrates and invertebrates are highly variable in which characteristic they possess. There are a few species such as the

*Hemigrapsus nudus* that may osmoregulate at certain salinity levels and become osmoconformers at other levels (Dehnel 1962). Thus, it is impossible to determine a species' osmoregulatory behavior solely based on its phylogeny. Regardless of whether the species is an osmoregulator or osmoconformer, most organisms have a minimum and maximum level of environmental salinity that they can tolerate without a lethal outcome. Freshwater consists of 0-3ppt of salt, seawater has around 35-37ppt, and any bodies of water between those two ranges are classified as estuary environments. The Siberian Prawn has been found in rivers and the delta, but their specific lower and upper limits of salinity tolerance have not been discovered yet. The goal of this study is to evaluate the salinity tolerance of this species and determine their profile as an osmoregulator or osmoconformer in various salinity levels. By determining these two factors, we aim to predict their distribution pattern in the future to make appropriate conservation plans for any native species that may be threatened by their dispersal

## Materials and Methods

### *Specimen collection*

The Siberian Prawn used in this study were collected by midwater trawling in the San Joaquin Delta estuary near Chipps Island, California, that connects the Suisun Bay with the Sacramento River and the San Joaquin River. The deepest part of the delta is over 80m

\* Corresponding author. Email: [tyamaguchi@csustan.edu](mailto:tyamaguchi@csustan.edu)

in depth, thus the trawling net (Figure 1) is only able to capture organisms swimming within 3.1m below the surface of the water. Each tow was held for 20 minutes before retrieving the net, and a total of ten tows was performed. If the invasive prawns were captured in the net, they were stored in an 18-gallon ice chest filled with the water collected from the sampling site and a battery powered aerator. After ten tows, the specimens were transported back to the Lodi Fish and Wildlife Office (FWO), then to the research facility at California State University Stanislaus. Collections were made once in September and twice in October 2016, yielding a catch of 40, 12 and 7 shrimp respectively.

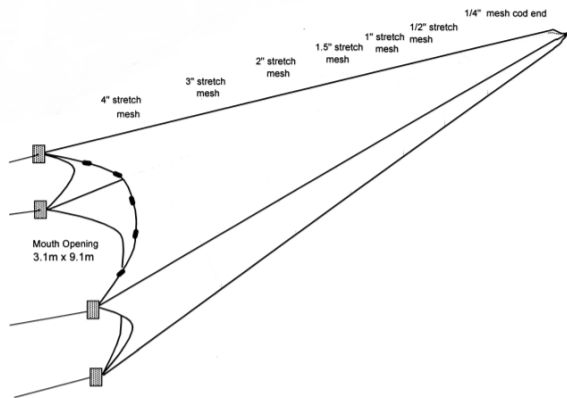


Fig. 1. Midwater trawling net used to capture the Siberian Prawn in the Chipps Island (from Brandes and McLain 2001).

### Specimen maintenance

The first batch of collected specimens were kept in the cooler with the lid open in the lab room to allow the shrimps to acclimate to lab conditions for 24 hours. However, the aerator batteries died overnight and caused the shrimps to suffocate in the anoxic water. All 40 individuals were found dead the next morning and all were stored in the freezer for future morphological analyses and parasitic inspections. The next batch of specimens contained 12 individuals, which were all placed in a 12-gallon tank filled with room temperature tap water with an outlet powered aerator and water filter. The next group of 7 individuals were added to the same tank.

The shrimps were fed one shrimp pellet per individual at approximately noon every weekday, and nothing on the weekends. Observational notes on the shrimp behaviors were made during feeding time as well. Lids were originally not put on the tanks. Consequently, a few individuals jumped out of the tank and were found dried up and dead on the floor the day after. A plastic lid was later placed on top of the tanks to prevent the shrimps escaping as well as reduce water loss from evaporation and splashing due to the water filter.

### Microscopic observations

The original 40 individuals were inspected under a dissection scope for the presence of potential ectoparasites. The morphometrics of the specimen were also measured and compared to the data collected by Brown and Heib (2014).

### Salinity tolerance and hemolymph analysis

Due to the low specimen count, this analysis will be done at a later time with a total of 200-300 individuals. Thirteen 10-gallon tanks will be set up with various levels of salinity ranging from 0ppt to 72ppt with 6ppt increments. The salinity of each tank will be adjusted by mixing distilled water with appropriate amount of Instant Ocean™. During the study, 15-20 shrimp will be placed in each tank for 48 hours and the mortality rate in each tank will be recorded at the end of this time period to determine their sub-lethal limit. In order to sustain the salinity of each tank, the shrimps will not be fed during this period. Upon completion, each shrimp's hemolymph will be collected using a microliter syringe inserted into the carapace over the heart. Collected hemolymph will be analyzed using an osmometer to record its osmolarity. This information will be used to determine the osmoregulatory behavior of *P. modestus*.

## Results and discussion

### Behavioral observation

When first introduced to the tanks, the majority of the shrimps showed signs of stress such as swimming back and forth restlessly, jabbing towards the surface or the glass, or curling up their abdomen while floating in place by beating their pleopod. These behaviors were seen much less frequently after 3 weeks. Some individuals appeared to be very possessive of the food when the pellets were given. These individuals would use their maxilliped to hold the food to their mouth as they chewed on the first piece of the pellet, while holding onto a second piece with their chelipeds. This behavior was more prominent on Mondays when they were starved during the weekend. Competition for food was observed in few instances where one individual jabbed aggressively towards their competitors that were attempting to also obtain the pellets. However, the most extreme effect of their starvation was cannibalism.

Two incidents of cannibalism occurred within the nine-week period. The first event was discovered on Monday of Week 6, where one shrimp was missing and some of the shrimp's body parts were found scattered around the bottom of the tank. Only bits and pieces of the exoskeleton were found in the tank, so whether it was predated while it was molting remains unknown. On the following Monday, a relatively small shrimp was observed eating a decapitated, naked (without the



exoskeleton) shrimp of similar size (Figure 2a). We were able to gather almost the entire exoskeleton that was cleanly separated from the body (Figure 2b, 2c), suggesting that it came off naturally through molting rather than being stripped off by the predator. These observations correspond with the findings of Abdussamad and Thampy (1994) on the Tiger shrimp, where cannibalism is most likely to occur against individuals that very recently molted, and the size of the individuals does not play a significant role on the predator/prey relationship. When the pellets were introduced again on the same day, the predator shrimp released its prey and held onto the pellet instead, suggesting that when food supply is low *P. modestus* may eat members of its species, but it is not their preferred diet. Additionally, other members of the tank showed no interest in the predated shrimp and seemed to distance themselves from the cannibalistic individual. Whether this was a learned behavior from the predator shrimp's aggressive behavior in the past or simply dependent on the hunger level and diet preference of the individual remains unknown.

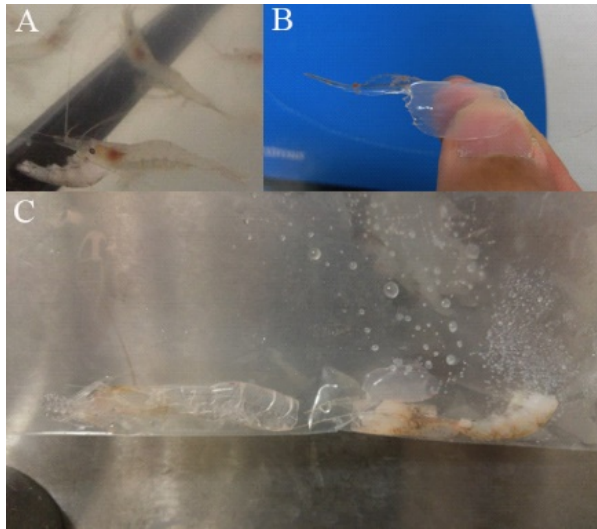


Fig. 2. (A) *Palaemon modestus* consuming another molted individual in the tank. (B) The cephalothorax carapace of the predated individual that presumably has been molted off. (C) The exoskeleton of the abdomen of the predated individual that has been presumably molted off on the left and its half-eaten muscular body on the right.

#### *Ammonia poisoning*

After six weeks, some individuals started to show signs of weakening such as lower activity level, rejection of food, and disorientation, shown by individuals swimming or resting in a slanted manner. By week nine, all individuals were found dead. The tank water was brought into Tropical Haven aquaria store to test its water quality. The test showed that the tank water contained a high concentration of ammonia, a toxic nitrogenous waste (Ip et al. 2001) excreted by the

aquatic invertebrate. We hypothesize that the shrimp mortality was primarily caused by ammonia poisoning through the tank water. In the natural aquatic environments, the *Nitrosomonas* bacteria, also known as the Ammonia-Oxidizing Bacteria (AOB), breaks the ammonia down into nitrite (Urakawa et al. 2006), which is then further broken down to nitrate by the Nitrobacter (Mellbye et al. 2015). Nitrate is a non-toxic chemical that often acts as a fertilizer along with ammonia for many aquatic plants or photosynthetic algae (Bracken et al. 2006). This whole process is often referred to as biological nitrogen cycling (Ward et al. 1989). We had hoped the *Nitrosomonas* bacteria culture would naturally grow in the tank before the ammonia reached a toxic concentration, but it failed to do so. In future experiments, a biofilter containing Nitrobacter and ABO and will be mixed into the tank water prior to the introduction of the shrimp to prevent future mortality through ammonia poisoning.

#### *Parasitic infection and morphometrics*

No obvious parasites were found on the surface of the shrimp's bodies. The presence of endoparasites was not investigated in this study, but it is of great interest for future studies because *P. modestus* is the most common shrimp found in the Sacramento-San Joaquin delta (Brown and Hieb 2014) and as such there is a chance of bioaccumulation of toxins in commercial fish that predate on the shrimp if they contain parasites harmful to humans.

The morphometric of *P. modestus* matched the range given by Brown and Hieb (2014) with the total body length ranging from 62mm to 80mm.

#### **Acknowledgement**

We thank our Lodi FWO crew members, especially Mike Marshall, who contributed a great deal in order to collect the specimens. This study was funded by Water Resources Institute (WRI)/USDA.

#### **References**

- Abdussamad EM, Thampy DM. 1994. Cannibalism in the tiger shrimp *Penaeus monodon fabricus* in nursery rearing phase. *Journal of aquaculture and tropics*. 9:67-75
- Brackens ME, Bracken S, Stachowicz JJ. 2006. Seaweed diversity enhances nitrogen uptake via complementary use of nitrate and ammonium. *Ecology*. 87(9):2397.
- Brandes PL, McLain JS. 2001. Juvenile chinook salmon abundance, distribution, and survival in the Sacramento-San Joaquin Estuary. In: Brown RL, editor. *Contributions to the Biology of Central Valley Salmonids*. Fish Bulletin 179(2). Sacramento (CA): California Department of Fish and Game. p 39-136.
- Brown T, Hieb KA. 2014. Status of the Siberian prawn, *Exopalaemon modestus*, in the san francisco estuary. *San Francisco estuary & watershed science*. 12(1).

- de Castro MCT, Timothy WF, Jason MHS. 2017. Invasive species in the northeastern and southwestern Atlantic Ocean: A review. *Marine Pollution Bulletin*. 116(1-2):41-47.
- Haskell CA, Baxter RD, Tiffan KF. 2006. Range expansion of an exotic Siberian prawn to the lower Snake River. *Northwest Science*. 80(4):311-316
- Hill RW, Gordon AW, Margaret A. 2012. Water and salt physiology: Introduction and mechanisms. In: Richard HW, Cordon AW, Margaret A, editors. *Animal physiology third edition*. Sunderland (MA): Sinauer Associates Inc. p. 699-716.
- Holthuis LB. 1976. FAO species catalogue – Vol. 1 – Shrimps and prawns of the world. *FAO Fish. Synopsis*. 125(1):38-50.
- Ip YK, Chew SF, Randall DJ. 2001. Ammonia toxicity, tolerance, and excretion. *Fish Physiology*. 20:109-148.
- Lodi Fish and Wildlife Office, USFWS. 2016. Chippis Islands trawls CHN-POD species 2012-2016 [Internet]. [Cited 19 December 2016]. Available from [https://www.fws.gov/lodi/juvenile\\_fish\\_monitoring\\_program/jfm\\_p\\_index.htm](https://www.fws.gov/lodi/juvenile_fish_monitoring_program/jfm_p_index.htm)
- Mellbye BL, Bottomley PJ, Sayavedra-Soto LA. 2015. Nitrite-oxidizing bacterium *Nitrobacter winogradskyi* produces n-acyl-homoserine lactone autoinducers. *Applied and environmental microbiology*. 81(17):5917-5926.
- Nichols FH, Cloern JE, Luoma SN, Peterson DH. 1986. The modification of an estuary. *Science*. 80(231):567–573.
- Dehnel PA. 1962. Aspects of osmoregulation in two species of intertidal crabs. *Biological Bulletin*. 122(2):208-227.
- Raymond PH, Lucu C, Onken H, Weihrauch D. 2012. Multiple functions of the crustacean gill: osmotic/ionic regulation, acid-base balance, ammonia excretion, and bioaccumulation of toxic metals. *Frontiers in Physiology*. 3:431.
- Tiffan KF, Hurst WR. 2016. Feeding ecology of non-native Siberian prawns *Palaemon modestus* (heller, 1862) (decapoda, palaemonidae), in the lower snake river, washington, u.s.a.. *Crustaceana*. 89(6-7):721-736.
- Urakawa H, Maki H, Kawabata S, Fujiawara T, Ando H, Kawai T, Hiwatari T, Kohata K, Watanabe M. 2006. Abundance and population structure of ammonia-oxidizing bacteria that inhabit canal sediments receiving effluents from municipal wastewater treatment plants. *Applied and Environmental Microbiology*. 72(10):6845-6850.
- Ward BB, Kilpatrick KA, Renger EH, Eppley RW. 1989. Biological nitrogen cycling in the nitracline. *Limnology and Oceanography*. 34(3):493-513.

# A contemporary assessment of Thomas Kuhn: The detection of gravitational waves as a Kuhnian revolution

David Bishel\*

B.S. Candidate, Department of Physics, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 17 April, 2017; accepted 19 July 2017

---

## Abstract

What denotes a scientific revolution? What makes an event so groundbreaking that it fundamentally alters the course of science thereafter? These questions inspired Thomas S. Kuhn's 1962 *The Structure of Scientific Revolutions*. Kuhn's work introduces and expounds upon the concepts of paradigms and paradigm shifts, sparking decades of debate and producing a more insightful understanding of the nature of science. Though Kuhn is occasionally understood one-dimensionally as a philosophical intermediary to later theories of scientific revolution, this paper argues that Kuhn's theory can instead be successfully employed as a benchmark of revolutions, inspiring a more robust understanding of specific sciences and the nature of science in general. A brief delineation of Kuhn's framework of paradigms establishes and defines terms that are central to the discourse (e.g. paradigm, theory, and normal science). Kuhn's work is then converted from a way of talking about science to a way of identifying scientific revolutions. The recent detection of gravitational waves is employed as a case study to demonstrate that Kuhn's work can be used specifically to delineate *why* a given event is revolutionary. As a result, this paper illuminates some of the central elements that comprise the emerging field of gravitational wave astronomy.

*Keywords:* paradigm, Kuhn, scientific revolution, gravitational waves

---

Predominant scientific theories are largely responsible for informing the general conception of reality in the current scientific era. What occurs when observation contradicts the dominant conception of reality? If contradiction arises only in one instance, then likely nothing happens; science resumes its previous course. However, the circumstance in which such contradictions cannot be ignored is far more problematic and is a consideration central to the philosophy of Thomas S. Kuhn. Throughout the second half of the twentieth century, Kuhn wrote extensively regarding science and scientific revolutions, delineating both the normal operation of scientific communities and the transition to new scientific paradigms. As with the writings of nearly all seminal thinkers, Kuhn's have been reinterpreted and conscripted to one philosophical faction *and* another<sup>1</sup>. His ideas have been embroiled in a battle of interpretation nearly since they were first published. The Kuhnian-inspired Strong Programme extrapolated Kuhn's philosophy to its logical extremes and essentially "develop[ed] a position that Kuhn did not recognize as his own" even while Kuhn was striving to "distinguish his own project from the new sociology of science [that is, the Programme]".<sup>2</sup> In one interpretive camp are those who view Kuhn as a stepping stone to

subsequent sociological thought or an indirect contributor to the social sciences. In the other camp are the likes of Devlin and other contributors to *Kuhn's Structure of Scientific Revolutions - 50 Years On*. These men and women maintain that Kuhn's theory is relevant as an integrated whole and should be valued as a single unit, not only distributed piecewise to other disciplines. Many of the essays in Devlin's anthology emphasize an accurate interpretation of Kuhn as their primary goal. In so doing, the authors treat Kuhn's work as pertinent to current philosophy of science. Devlin's colleagues consider Kuhnian thought not as a historical relic but as an active and relevant ideology of science. Most notably, editor and author Devlin addresses what he believes to be a fatal contradiction within Kuhn's theory and, instead of casting aside an outdated and irreparable philosophy, posits an amendment to lend Kuhn's theory greater consistency<sup>3</sup>. Together, the authors justify, defend, and even expand upon Kuhn's philosophy – work that the authors would not engage in if the targeted philosophy were flawed.

In the same interpretive tradition, I propose a direct application of Kuhn's relevant and vibrant philosophy. I maintain that Kuhn's theory itself can be deployed to understand individual scientific revolutions and the

---

\* Corresponding author. Email: [dbishel1@csustan.edu](mailto:dbishel1@csustan.edu)

<sup>1</sup> Jouni-Matti Kuukkanen, "Rereading Kuhn." *International Studies in the Philosophy of Science* 23, no. 2 (July 1, 2009), 217. Kuukkanen suggests that authors have interpreted Kuhn as belonging to various schools of thought – often to the benefit of whichever author is conducting the interpretation.

<sup>2</sup> Devlin, William, ed. *Kuhn's Structure of Scientific Revolutions - 50 Years On*. New York: Springer International Publishing, 2015, 173, 167.

<sup>3</sup> *Ibid.*, 153-166.

paradigms they demarcate. Since Kuhn wrote about theory and theoretical change, paradigm and paradigm shifts, and science and scientific revolutions, his work would be directly applicable if it can be used to accurately identify whether an event constitutes a scientific revolution and, if so, in what ways the event constitutes such a change. After delineating the central components of Kuhn's philosophy, I will distill his criteria for revolution into an evaluative tool to readily identify scientific revolutions, for the same purpose that a rubric is crafted to readily assess a work based on some standardized benchmark. I will then apply Kuhn's criteria for revolution to recent scientific events that have been popularly touted as revolutionary. These events will serve as a test case of how accurately Kuhn's theory captures the essence of a scientific revolution.

### Kuhn's Theory of Scientific Paradigms

When Thomas Kuhn wrote *The Structure of Scientific Revolutions*, he was proposing a genuinely novel philosophy of science. To delineate the structure of scientific communities, a pivotal concept in his philosophy, Kuhn had to craft his own definitions from the language available to him, definitions that could exactly suit his intentions.<sup>4</sup> He thus developed a semi-hierarchical framework of terms broadly encompassed by a "paradigm". While the term "paradigm" is commonly defined as one's worldview or beliefs, Kuhn's conception of paradigm transcends this common definition in both precision and sophistication. As we will see in the following sections, the framework that Kuhn establishes is intricately self-referential. However, Kuhn does not present a circular argument, isolated from the rest of philosophy of science. Instead, Kuhn's framework functions like a truss bridge whose every interconnecting strut increases the overall structural integrity. Unfortunately, this means that Kuhn's theory is not as simple as the common definition; the interactions among the whole are just as necessary as the definitions of the parts. At the end a diagrammatic overview of the relationships among the terms has been included, and it may be helpful to refer to the figure throughout the discussion (see Figure 1).

#### Paradigm

First and foremost, a scientific discipline is pursued and furthered by a scientific community, a collection of individuals that adhere to and are bound by a "paradigm." This single word – "paradigm" – is responsible for much of the confusion regarding Kuhn's conceit of scientific theories and theory change. His earliest uses of the term

were imprecise, blending previous senses of the word while adding on flavors of his own creation. In fact, linguist and philosopher Margaret Masterman shows Kuhn to have attached the term "paradigm" to twenty-one distinct phenomena.<sup>5</sup> Therefore, I propose that "paradigm" be used only to refer to the general construct to which a scientific community adheres within the stage of normal science; I will maintain this usage throughout the discourse. More specifically, a paradigm is the broad yet definable collection of theory, rules, and disciplinary matrix adhered to by a scientific community that enables it to conduct normal science. The elements of a paradigm tend to be elusive, tacitly posited, and largely assumed *a priori* by members of the community.

#### Theory

Perhaps the term that is confounded the most with "paradigm" in Kuhn's development of theory is the word "theory" itself. The theory is that which most think of as being the full description of a given discipline. However, as Kuhn employs it, a theory only pertains to what a disciplinary community asserts is true. A theory is essentially a lexicon of entities and their properties, a list of what exists and how each entity behaves and interacts with the others. As an example, consider the classical Aristotelian and Enlightenment-era Newtonian-Galilean theories of motion. In the Aristotelian theory, any change in an object was thought to be describable as a movement towards its natural state; heavy objects fall without impedance to the ground, wood floats happily on water, and the planets suspend in the heavens all because such are their respective ideal states. The Newtonian-Galilean theory makes no mention of natural states, but rather concerns itself with quantifiable forces applied to an object; heavy objects are attracted towards the massive earth under the force of gravity that increases with the inverse-square of separation, wood is buoyed upward by Archimedes' buoyant force equivalent to the weight of water displaced, and satellites and planets have circular orbits when their velocity and radius of orbit are in right proportion to each other.

#### Rules

If we consider "theory" to be the descriptive content of the paradigm, then the rules are the preconceived "commitments"<sup>6</sup> that dictate acceptable theory-content. The dominating commitment of a community, the premise that a community will hold on to until the very last, can be relegated to this rules category, as can the more visible methodological issues of what data are permissible and

<sup>4</sup> Thomas S. Kuhn, *The Structure of Scientific Revolutions*, Chicago, Ill.: University of Chicago Press, 1996, 182. For instance, Kuhn considered "theory" a better title for what he names the "disciplinary matrix" in the "Postscript" of the second edition of *Structure*. But alas, "as currently

used in the philosophy of science, ... "theory" connotes a structure far more limited in nature and scope than the one required."

<sup>5</sup> Brad K. Wray, "Kuhn and the Discovery of Paradigms," *Philosophy of the Social Sciences* 41, no. 3 (2011), 387.

<sup>6</sup> Kuhn, *The Structure of Scientific Revolutions*, 39-40.

what questions the research program of normal science should investigate.

#### *Disciplinary matrix*

In order to more fully account for the cohesion among scientific communities, Kuhn eventually resorted to invoking a new cause, the “disciplinary matrix”<sup>7</sup>. The disciplinary matrix of a community describes the actual means of communication within a community and encompasses the various representations of a community’s paradigm – alphanumeric, visual, and pedagogical representations, corresponding to symbolic generalizations, models, and exemplars.

#### *Symbolic generalizations*

Symbolic generalizations are the simplified and standardized notations employed by a disciplinary community and often assume alphanumeric representations of whole systems. Any physicist immediately recognizes  $F = ma$ , any chemist  $1s^22s^22p^4$ , any mathematician  $\frac{d^2x}{dt^2} = -kx$ . It is worth noting that each community trains its members in such a “trade-marked” perspective. To the mathematician,  $F = ma$  is a linear relation between  $F$  and  $a$ ; to the physicist, it is the initial equation by which a whole field of problems is solved. Similarly, the mathematician recognizes  $\frac{d^2x}{dt^2} = -kx$  as a second-order differential equation giving  $x = Ae^{-ikt}$ , whereas a physicist will see the equation of simple harmonic motion. Neither disciplinarian is correct or more insightful than the other. Rather, each is expressing the accepted symbolic generalizations learned during initial acclimation into her respective community.

#### *Model*

A model is a conceptual approximation of a system that provides insight into the system’s mechanism. Models deviate from symbolic generalizations in that models possess as a central component some physical aspect having spatial significance, whereas symbolic generalizations typically do not convey meaning regarding physical space. When discussing a physical spring, a physicist will refer to the symbolic generalization of its motion,  $\frac{d^2x}{dt^2} = -kx$ , and to the model of an ideal spring, a mass suspended from a vertical spring with negligible air resistance and no internal friction. Essentially, models describe the physical manifestation of a phenomenon, while symbolic generalizations relate the mathematics or the nomenclature of the phenomenon. Many may be familiar with the various early models of the atom: the “plum pudding,” Rutherford’s, Bohr’s, and the quantum

mechanical models. Each atomic model is derived from its respective theory and aids in visualizing the physical structure predicted by the theory, but the models can be comprehended without mention of any contributing calculation. Thus, the model serves as an effective conceptual picture of the final conclusions of a theory.

#### *Exemplars*

Prior to Kuhn, a paradigm was a table of verb tense conjugations that applies to most words in a given language. If a student of a language studies only the paradigms, then she will be adequately prepared to handle a majority of verb conjugations. In the same way that knowledge of the linguistic paradigms equips one to conjugate any typical verb, a Kuhnian exemplar is a “concrete problem solution”<sup>8</sup> that equips one to solve many of a community’s relevant problems; the method of solution demonstrated in an exemplar can be emulated in a related problem to derive an accepted answer. Summarizing Kuhn, Wray suggests that an exemplar “must (i) be widely accepted solutions to concrete problems, but also (ii) provide guidance to scientists as they try to solve other related problems”<sup>9</sup>. Though an exemplar explicitly addresses a single problem, an exemplar is only useful if it is also applicable to a more general class of problems. Perhaps the most well-known scientific exemplar is that of Darwin’s finches. Being presented in much the same way in any Introduction to Evolution course, its familiarity attests to its acceptance. It is concrete, distillable into a single question: how is it that there are so many varieties of Galapagos finches, each isolated to a given island and possessing a distinct beak morphology? And the solution is applicable to related problems that lie far beyond the range of finches. Forming the basis of evolutionary theory, Darwin’s solution not only provides standard explanatory principles regarding morphological divergences but also establishes a deductive approach for determining evolutionary relatedness. In short, an exemplar must pose a discrete question and offer a compelling and broadly applicable answer.

Furthermore, the exemplar is the necessary device for initiating, equipping, and acclimating new members to a scientific community. If uniformity of paradigm implies possession of the same lexicon, the same commitments, and the same language of discourse, then a community possessing a common paradigm has no need for recourse to fundamentals and can pursue topics beyond the foundation of the discipline. Kuhn suggests that a common initiation process, provided by the solution of exemplars, introduces a new member to the community’s paradigm. The student or member of a scientific community will immediately recognize that such a common initiation by exemplars is already institutionalized, merely by reflecting upon her

<sup>7</sup> Thomas S. Kuhn, “Second Thoughts,” in *The Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago, Ill.: University of Chicago Press, 1977), 297.

<sup>8</sup> *Ibid.*, 298.

<sup>9</sup> Wray, “Kuhn and the Discovery of Paradigms,” 389.

own education. Any introductory Biology 101 course will discuss Darwin's finches, any Chemistry 101 Dalton's Laws of Proportions, any Physics 101 Newton's inclined plane, as these are exemplars of their respective disciplines. It is the exemplar that orients students to major solutions of modern theory and the mystifying discoveries that inspire modern research. A set of common exemplars is necessary to initiate students into a disciplinarian community, thereby unifying and perpetuating the paradigm of the community.

#### *Normal science, scientific revolution, and speciation*

When a scientific community holds each element of a paradigm in common – theory, rules, and elements of the disciplinary matrix – a foundation of communication and unity is established, and the community can engage in the more sophisticated pursuits of normal science.<sup>10</sup> Normal science occupies the typical operation of a discipline and operates entirely within a paradigm. Equivalently, normal science *is* the scientific operation of a paradigm. How then do we transition outside of a self-perpetuating, predominantly successful conception of the world to adopt a new, likely uncertain, and largely untested paradigm? According to Kuhn, the pursuit of normal science mimics the solving of a series of puzzles that are all assumed to be governed by the same rules, describable by the same theories, and communicable via the same representations.<sup>11</sup> Given that a paradigm is imperfect, that it is not so well-adapted as to encompass every possible puzzle one may encounter, a scientist will by chance pull a puzzle from the shelf that will require an entirely different set of rules; he will encounter a problem for which his paradigm provides no useful guidance. Examining the unknown puzzle is scientific discovery, the discovery of an anomaly by the natural progression of normal science. Discovery may lead to crisis, and crisis to revolution.

Thus, a majority of the time a disciplinarian community operates under the normal scientific regime and adheres to a single paradigm. A normal scientific community by virtue of its common paradigm possesses common theory, rules, and disciplinary matrix, which together enable esoteric pursuits and communication within the community. Should one or more aspects of the paradigm be sufficiently questioned, doubted, or otherwise disrupted, the community will be cast into crisis, and a period of competitive paradigms may ensue. Eventually, one paradigm will gain sufficient support, and normal science will resume under the new regime of the now-dominant paradigm. The new paradigm will be in a different form from the previous paradigm, with different relevant questions and different methods of science. Adopting a new paradigm requires abandoning an element

critical to the previous paradigm and deploying something in its place – something that necessarily did not emerge from nor can be understood by the preceding paradigm. Such is the paradigm shift, dramatic enough to warrant the label of “scientific revolution.”

However, Kuhn presents speciation as another resolution to scientific crisis,<sup>12</sup> an alternative that maintains some continuity with the older paradigm. If, when a discovery is made, a significant set of problems are revealed that can be addressed under the previous paradigm, a specialized niche community may emerge to pursue solutions to the new problems. Just as some form of isolation is a prerequisite to biological speciation, technical isolation is a prerequisite to scientific speciation. “Isolation” refers to the barriers to communication with other disciplines; it is “technical” because communicative barriers emerge as the techniques of a discipline become increasingly specialized. Eventually, only those within the community are sufficiently versed in the discipline to genuinely contribute to research. Such isolation “bar[s] full communication”<sup>13</sup> with other disciplines. A technically isolated community has no anchor to its parent community, and the new community's paradigm may freely transform under influence of its normal scientific pursuits.

The new paradigm will naturally, gradually diverge from that of the parent community. In such a process, operative definitions are modified, instrumentation and measurements become increasingly specialized, and forms of representation inevitably drift. Eventually, communication between the parent and niche communities breaks down,<sup>14</sup> and it is evident that a new paradigm has replaced the previous paradigm within the niche community. Though speciation is a far more gradual process than the complete paradigm shifts of scientific revolutions, Kuhn nonetheless maintains speciation to be revolutionary.

#### **Expanding Kuhn's Discussion to Current Events: The Detection of Gravitational Waves**

The question then stands: what must be present to induce scientific revolution or speciation? What necessarily changes across a paradigm shift? Since a paradigm comprises a theory, a disciplinary matrix, and rules, a change in paradigm requires a change in one or more of these paradigmatic elements. Specifically, a theory will change when its constituent definitions transform, when a community's fundamental assumptions about the world and entities in the world are amended. Rules, dictating admissible forms of evidence and measurement, are altered

<sup>10</sup> Kuhn, *The Structure of Scientific Revolutions*, 19-20.

<sup>11</sup> *Ibid.*, 36.

<sup>12</sup> Thomas S. Kuhn, “The Road since Structure.” *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association 1990* (1990), 8.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*, 9.

when new questions requiring new forms of data are pursued. A community's disciplinary matrix will transform with changes to the alphanumeric, visual, and pedagogical representations that are used to communicate their paradigm.

We are now ready to ask ourselves the following questions of a given event to assess whether or not it is a Kuhnian revolution.

- 1) Was there a change in fundamental definitions of the world and its entities, including addition or subtraction of entities?
- 2) Are new commitments upheld, notably in the form of admissible data or in the employment of instruments in fundamentally novel ways?
- 3) Does the community rely on different representations of the paradigm, particularly alphanumeric, visual, or pedagogical?

To distinguish the possibility of speciation, we must include one further consideration.

- 4) Does the previous community persist, free from competition with the new community, and is communication possible between the two?

Should an event satisfy one or more of the above criteria, the event in question can be considered revolutionary in the Kuhnian sense.

To invoke perhaps one of the more recent scientific breakthroughs at the date of publication, let us now consider the first direct detection of gravitational waves (GWs). This event incited such excitement that it was touted as revolutionary – even in public discourse<sup>15</sup>. Predicted by Einstein's theory of general relativity, GWs had yet to be measured directly until the September 2015 detection at the Caltech/MIT collaborative Laser Interferometer Gravitational-Wave Observatory (LIGO) detector.<sup>16</sup> However, does this first-of-its-kind measurement constitute a Kuhnian scientific revolution?

#### *Has theory changed?*

In one sense, a majority of the theory of GWs did not change with the 2015 detection but was born out of Einstein's well-accepted theory of general relativity. Under this limited view, the GW detection is not a revolutionary event but an observation corroborating Einstein's general relativity. However, if we maintain a strictly Kuhnian

definition in which any alteration of meaning amounts to a consequent change in theory, then we arrive at just the opposite conclusion. At its core a theory is a lexicon of entities and their properties. We can then conceivably argue that two definitions and theories of GWs are possible – one in which the waves are observable, and one in which they are not. However, did these conflicting definitions actually exist? In 2016 with the public enthusiasm surrounding the official release of the detection, we know that the Observable definition was dominant enough to earn recognition by popular culture. What evidence, though, is available that there were those who doubted the detectability of gravitational waves? If a community skeptical of GWs never existed, if there was never an earlier GW definition, then the Observable paradigm would have been fully established by the time of detection, and the event would not be a Kuhnian revolution. Valerio Faraoni combats such GW skeptics, addressing the "misconception among physics students and professionals alike" that certain interactions would render GWs practically unobservable.<sup>17</sup> In his 2007 article, Faraoni strives to convince a certain subset of the physics community that GWs can in fact be detected. Even so late in the lifetime of the LIGO experiment, we find those who denounce the observability of GWs, those who ascribe to the Unobservable definition!<sup>18</sup> Yes, the Unobservable definition did in fact possess a supporting community. Thus, there could have been a paradigm shift from the Observable definition to the Unobservable definition of GWs. Furthermore, the gap between definitions lies at a fundamental junction: observable versus unobservable. The research program, or normal science, implied by each definition is radically different. The normal science of the Observable definition beckons empirical corroboration while that of the Unobservable demands rigorous mathematical proofs. One program deals with instrumentation, the other with chalk boards. We see that a definitional change as apparently insignificant as removing the prefix from "unobservable" can propagate into an astounding shift in a paradigm and its normal scientific program, and potentially indicate a Kuhnian revolution.

#### *Have rules been altered?*

Realignment of commitments may also affirm the occurrence of a Kuhnian revolution. As already alluded to, different definitions, programs of normal science, and paradigms can emphasize different forms of admissible data. To a first approximation, the preference of data of the

<sup>15</sup> Justin Worland, "Scientists Confirm Einstein's Theory of Gravitational Waves," *Time Magazine*, February 11, 2016, <http://time.com/4217353/einstein-gravitational-waves/>

<sup>16</sup> "Gravitational Waves Detected 100 Years After Einstein's Prediction." (Press Release, Washington, DC, February 11, 2016), <https://www.ligo.caltech.edu/news/ligo20160211>

<sup>17</sup> Valerio Faraoni, "A Common Misconception about LIGO Detectors of Gravitational Waves." *General Relativity and Gravitation* 39, no. 5

(2007), 677–84, doi:10.1007/s10714-007-0415-5. Some physicists thought that interactions between the GW and the detector and between the GW and space would counteract each other, rendering GWs unobservable in practice.

<sup>18</sup> Astoundingly late; LIGO's nascence extends back into the 1970s and 80s. See <https://www.ligo.caltech.edu/page/timeline>

Observable and Unobservable definitions is empirical or theoretical data, respectively. However, the Observable definition doesn't simply emphasize empirical data over theoretical calculations. Empirical data are necessarily incompatible with the earlier Unobservable definition of GWs. Consider some hypothetical detector whose sole purpose is to detect GWs (or, the very real LIGO detector that has been similarly constructed to solely detect GWs). No sane research program operating under the Unobservable definition would divert resources to a detector to observe that which, by definition, its members maintain is unobservable. Conversely, such a detector would be deemed immensely valuable under the Observable definition, as such a detector would provide the empirical means to validate their paradigm. The empirical data would likewise be admissible only according to the Observable GW definition. The new definition of GWs allows for new admissible forms of evidence, which then prompts development of highly specialized instrumentation. The facts that new data are admissible and specialized instrumentation are developed can be attributable to a transformation in the community's rules and commitments, suggesting that a Kuhnian revolution likely has occurred. By this argument, the Observable and Unobservable definitions can then be said to belong to separate paradigms.

#### *Has speciation occurred?*

Between the Observable and Unobservable paradigms, there was arguably a wholesale Kuhnian revolution, as the Observable paradigm essentially eliminated that of the Unobservable. However, the Observable-Unobservable competition of paradigms was a debate solely within the GW community over the nature of GWs, the theory of GWs, and the paradigm of GWs; this level of competition did not involve any other discipline. There is thus a second level of potential revolution we must consider, a revolution involving the GW community and some other discipline. Yet even in this broader scope, the GW paradigm was never poised to compete with the larger astronomical paradigm. No aspect of the GW community is positioned to undermine or supplant any part of the larger astronomical community from which it emerged. One can readily believe that the GW community seeks to investigate and understand GWs, while the rest of the astronomical communities seek to investigate and understand their astronomical interests. The paradigm of the GW community can presumably coexist with that of the astronomical community, presenting a set of problems that can be pursued alongside those of the general astronomical paradigm. Having neither overturned nor challenged the previous paradigm, the emergence of the GW community

and paradigm is more aptly described as scientific speciation.

#### *Has the disciplinary matrix been updated?*

We have established cause to believe that the definition of GWs was subtly yet fundamentally changed; that new forms of data became admissible, enabling construction of the LIGO detector; and that the GW community emerged through a process of scientific speciation. Though this change did not encompass any element of the disciplinary matrix of the community, a delay in the emergence of distinct representations is not surprising.<sup>19</sup> As speciation progresses, the paradigm of the gravitational wave astronomy community will be continually refined, diverging and becoming gradually more incommensurable with the general astronomical paradigm. Only then, after years of development of the paradigm under technical isolation from other disciplines, can we expect to identify a transformation in the community's representative forms. Regarding exemplars, it is possible that LIGO's GW detection may be venerated to the class of exemplars. As the first direct detection of GWs, the event certainly poses a significant milestone in the course of GW astronomy – should this emergent subfield earn its longevity. If LIGO's instrumentation and method of detection remain central to the discipline, then this milestone will remain directly applicable towards the future state of the discipline, constituting sufficient reason for exemplar status. Similarly, discoveries made by the GW community that become central to their theory would likely inform the symbolic generalizations and models that will be incorporated into the paradigm. LIGO could potentially influence the various representations of GWs, but such a claim remains speculative. We must wait for LIGO to become history before we may sufficiently assess its impact on the representational forms of the disciplinary matrix.

Regardless of any immediate change in disciplinary matrix, the GW detection event can still be considered indicative of a Kuhnian revolution, signaling that a new theory of GWs, new rules, and a new paradigm now guide the GW community. More specifically, the detection is a notable event in a process of scientific speciation, producing the GW community from the more general astronomical community.

In agreement with the popular consensus of the GW observation, an analysis based on Thomas Kuhn's conception of scientific revolution strongly suggests that the event is indicative of a scientific revolution. However, a certain subtlety should be noted. The public declares that the observation *itself* is revolutionary, but this statement must be qualified. From a Kuhnian perspective, we can only go so far as to say that the observation is a noteworthy

<sup>19</sup> Kuhn, "Road since Structure," 8. There often is "difficulty in identifying an episode of speciation until some time after it has occurred".



validation of the GW paradigm. The event signals that a revolution has taken place; the event is therefore revolutionary but is not actually a revolution. The Kuhnian revolution had already begun by the time of observation and will continue as the GW paradigm undergoes speciation, diverging from that of the parent astronomical community. We thus conclude that Kuhn's work not only is directly applicable to identify scientific revolutions and offers an explanation of what is changed across a revolution, but also presents a more nuanced conception of the process of scientific revolution.

A Kuhnian analysis can aid in understanding that scientific revolutions occur all the time. The communities and paradigms of materials science<sup>20</sup>, ultrafast optics<sup>21</sup>, and global ecology<sup>22</sup> did not even exist prior to the 1960s. The emergence of each of these fields tells us something about the paradigm of the communities from which they emerged, and the overall values and commitments of the societies in which they were first established. Something about the greater society valued the knowledge gained from GWs,

the practicality of materials science, the instrumentation of ultrafast optics, and the global-mindedness of global ecology. In the modern scientific era, the public is more scientifically literate than ever, and the dominant scientific paradigms increasingly intersect and even influence the public sphere. Understanding current scientific paradigms then becomes a sociological pursuit, pertinent to scientists and the laity alike. In the modern era a direct application of Kuhn's criteria for scientific revolution is imperative, as his work provides us insight into current scientific paradigms by distinguishing them from those that were held previously. By employing Kuhn's conception of paradigm and applying it to identify differences between the paradigms on either side of a revolution, we can potentially track the ever evolving conception of reality and perhaps illuminate how these paradigms inform the meta-narratives of society. By understanding the evolution of a scientific discipline, we come to understand something about our society as a whole.

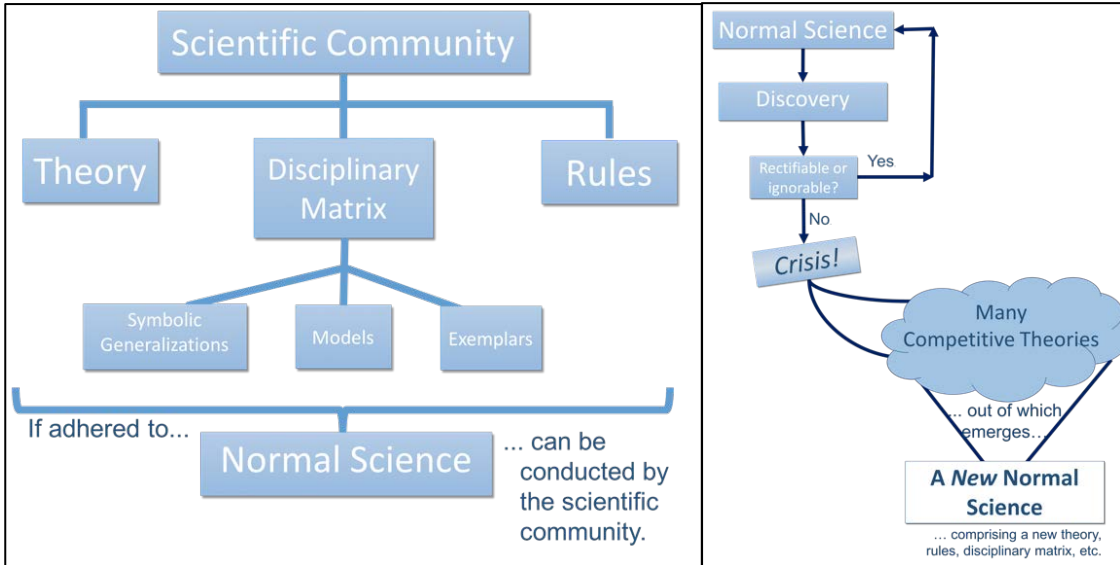
## References

- Bishel, David. "Theory Change by Scientific Revolution: An Assessment of Kuhnian Revolutions." Poster at the CSU Stanislaus Honors Capstone Conference, Turlock, CA, May 6, 2016.
- Devlin, William, ed. *Kuhn's Structure of Scientific Revolutions - 50 Years On*. New York: Springer International Publishing, 2015.
- Faraoni, Valerio. "A Common Misconception about LIGO Detectors of Gravitational Waves." *General Relativity and Gravitation* 39, no. 5 (2007): 677–84. doi:10.1007/s10714-007-0415-5.
- "Gravitational Waves Detected 100 Years After Einstein's Prediction." Press Release. Washington, DC, February 11, 2016. <https://www.ligo.caltech.edu/news/ligo20160211>.
- Kuhn, Thomas S. "On Learning Physics." *Science & Education* 9, no. 1 (n.d.): 11–19.
- . *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago, Ill.: University of Chicago Press, 1977.
- . "The Road since Structure." *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* 1990 (1990): 3–13.
- . *The Structure of Scientific Revolutions*. Chicago, Ill.: University of Chicago Press, 1996.
- Kuukkanen, Jouni-Matti. "Rereading Kuhn." *International Studies in the Philosophy of Science* 23, no. 2 (July 1, 2009): 217–24.
- Martin, Joseph D. "What's in a Name Change?" *Physics in Perspective* 17, no. 1 (2015): 3–32. doi:10.1007/s00016-014-0151-7.
- Mooney, Harold A., Anantha Duraiappah, and Anne Larigauderie. "Evolution of Natural and Social Science Interactions in Global Change Research Programs." *Proceedings of the National Academy of Sciences of the United States of America* 110 (2013): 3665–72.
- Rose, Melinda. "A History of the Laser: A Trip through the Light Fantastic." *Photonics*. <http://www.photonics.com/EDU/Handbook.aspx?AID=42279>.
- Worland, Justin. "Scientists Confirm Einstein's Theory of Gravitational Waves." *Time Magazine*. February 11, 2016. <http://time.com/4217353/einstein-gravitational-waves/>.
- Wray, Brad K. "Kuhn and the Discovery of Paradigms." *Philosophy of the Social Sciences* 41, no. 3 (2011): 380–97.

<sup>20</sup> Martin, Joseph D. "What's in a Name Change?" *Physics in Perspective* 17, no. 1 (2015), 6. doi:10.1007/s00016-014-0151-7. The discipline of materials science emerged in the 1960s as an alternative to the previously established solid state physics.

<sup>21</sup> Melinda Rose. "A History of the Laser: A Trip through the Light Fantastic." *Photonics*, <http://www.photonics.com/EDU/Handbook.aspx?AID=42279> Ultrafast laser pulses were first demonstrated with the tunable dye laser, invented by Bernard Soffer and Bill McFarland in 1967.

<sup>22</sup> Harold A. Mooney, Anantha Duraiappah, and Anne Larigauderie, "Evolution of Natural and Social Science Interactions in Global Change Research Programs," *Proceedings of the National Academy of Sciences of the United States of America* 110 (2013), 3665. Modern global ecology, or earth systems science, didn't emerge until the 1980s, fueled by "[e]fforts to develop a global understanding of the function of the Earth as a system".



after Bishel 2016

Figure 1. Left, static case of science, in which a scientific community ascribing to certain commonalities conducts “normal science.” Right, dynamic case of science, in which normal science uncovers irreconcilable anomalies, creating scientific crisis and creating a climate in which a new theory may emerge as dominant.

# Misconceptions in stem cell research: The need for clarity through education

Vikki Blansit\*

*B.S. Candidate, Department of Biological Sciences, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 5 April, 2017; accepted 19 July 2017

---

## Abstract

Stem cell research is one of the many controversial sciences in biological research. The use of embryos for research purposes is not a topic that can be taken lightly. However, if the findings from this research lead to treatments or even cures for debilitating diseases and contribute to our knowledge of how cancer develops and spreads, is it worth pursuing this kind of research? Many people are unsure about whether the benefits outweigh the ethical dilemmas. Will having enough education regarding the topic decrease its controversy? Or does the controversy stem from opinions that are already supported by accurate knowledge of the research? Through a survey of two groups at CSU Stanislaus, I was able to determine whether students have been provided enough information to make educated decisions or provide educated opinions regarding stem cell research. The first group consisted of 127 students majoring in biological sciences. The second group consisted of 165 students majoring in a field other than biological sciences. The subjects were asked to provide personal information, such as sex, age, religious views, ethnicity, and education. They were also asked to indicate where they get their information regarding stem cell research and how often they learn about the topic. Then they had to answer whether certain statements were true or false. Opinions on whether the research should be supported and whether it is worth funding were also collected. The data revealed correlations involving personal background and opinions/knowledge about stem cell research. One positive correlation was found in having a major or minor in biology and being able to be persuaded by accurate statements about the research. Participation in religious activities was negatively correlated with support for the research, having accurate beliefs about the research, and being able to be persuaded by accurate statements about the research. Those who self-reported as religious, and more specifically Christian, were less likely to support the research and have accurate beliefs about the research. The positive correlation between majoring or minoring in biology and being able to be persuaded by accurate statements about the research could be due to exposure to controversial topics. Exposure to accurate information about controversial topics in science could lead to more acceptance of this research. This could be done through alterations in the general education requirements for California State Universities to include more topics involving controversial research.

*Keywords:* stem cell, controversy, education, religion

---

## Introduction

New discoveries in science found through research and testing tend to create turmoil due to conflicting opinions from the public. Some can see the greater good in the research, while others fear the possible immoral and unethical steps taken to reach these discoveries. Stem cell research is one of the sciences with this problem. The public is divided between the supporters of the research and the opposition. The variables that play a role in the conflicting viewpoints have yet to be fully explored. Previous studies have generally found correlations between religious affiliations and attitudes towards stem cell research. If education plays a role in the attitudes towards stem cell research, then one can conclude that there is a need for stem cell research education in order to gain support for stem cell research.

## Background

Given all of the mixed opinions about the topic of stem cell research, it is important to understand what the science is really about. Stem cells could be imagined as the building blocks of nature. They have the ability to produce any type of cell in the body and are the first cells that lead to the development of a fetus and ultimately a baby. Stem cells are also found in certain areas of the body where they help in tissue repair and renewal. The types of stem cells can be arranged in three categories including embryonic, adult, and induced pluripotent (“Stem Cell Information,” 2015). Embryonic stem cell research has been an area of controversy in this field.

Embryonic Stem Cells (ESCs) used in research are created in-vitro (in a lab dish). An egg is fertilized and becomes an embryo. The inner cells, or inner cell mass, of the embryo during the blastocyst stage are stem cells. These cells differentiate into all the types of cells found in the

---

\* Corresponding author. Email: [vblansit@csustan.edu](mailto:vblansit@csustan.edu)

body. The sources of the embryos used in the research are In-Vitro Fertilization (IVF) clinics. They are donated with consent by the patients who no longer need or want the embryos. The other options for the fate of these embryos are thaw and discard, donate to another couple, or freeze indefinitely. However, the options may vary depending on the clinic (Lyerly et al., 2008). Embryonic stem cell research results in the destruction of an embryo, which is a major ethical hurdle the science faces. The question of when life begins has been an ongoing debate. Those who consider the destruction of an embryo as taking a life generally oppose embryonic stem cell research, but may support adult or induced pluripotent stem cell research. While these two other areas of research are beneficial, embryonic stem cell research is still needed in conjunction with them.

Adult/Somatic Stem Cells (ASCs) are undifferentiated cells found within a tissue or organ. They can differentiate to yield some or all of the major specialized cell types of the tissue or organ. They normally maintain and repair the tissue they are found in. They were once thought to be specialized, but now it seems they are able to differentiate into other tissues (transdifferentiation). Some believe these stem cells can replace embryonic stem cell research, but the science is still not fully understood and scientists cannot produce all cell types and tissues using ASCs. There are many questions still needing to be answered involving ASCs, including, how many types exist in the body, how they evolve during development, what controls their behavior, where they are specifically located in the body, and the process of differentiation into specific cell types or tissues. It may be possible to improve the process of differentiation of these ASCs to become more efficient and reliable in tissue repair within our bodies if we better understand how they work ("Stem Cell Information," 2015). For now, embryonic stem cell research is still needed.

Induced Pluripotent Stem Cells (iPSCs) come from the reprogramming of adult cells (normal body cells) to become ESC-like cells. The adult cells were thought to have a set fate, but it has been discovered that they can be "de-differentiated" and reprogrammed. By turning on or off certain genes, these adult cells could express genes or factors that reflect that of an ESC. This technique showed significant results when these cells were tested. They were able to produce all three germ layers, produce stem cell markers, and were able to produce many tissue types when injected into a mouse embryo early in development. The tissues from iPSCs would be nearly an identical match to the recipient, avoiding the risk of rejection, since the procedure would utilize the recipient's own body cells. Some believe this research could replace the use of embryos, but much more research is needed before this can be used in transplantation medicine. For now, viruses are being used to reprogram the cells, which has been rather imperfect resulting in abnormalities such as cancer. There

is research being done on alternatives to these viruses ("Stem Cell Information," 2015).

Stem cell research has much to offer the medical field. It may help to increase our understanding of how diseases occur and lead to better treatment therapies. This research could also be a major breakthrough in regenerative medicine. Regenerative medicine is the process of replacing damaged cells or tissue in order to restore it to normal function. Stem cell research could be used to test new drugs for safety and effectiveness, avoiding risk to a subject. This research will hopefully contribute to our knowledge of how cancer develops and spreads, since cancer is thought to involve the problem of differentiation and cell division. This could also further our understanding of birth defects for the same reasons.

Stem cells have already been applied in medicine. The use of bone marrow transplants has been used for years. If a disease is being treated with bone marrow, then it is being treated with adult stem cells. Cord blood stem cells, or hematopoietic stem cells, are the same stem cells found in bone marrow. These stem cells give rise to all types of cells found in the blood: red blood cells, white blood cells, and platelets. These are used in therapies for certain blood diseases such as leukemia, anemia, and lymphoma. There are clinical trials with stem cells from cord tissue. A few of the many clinical trials include Alzheimer's disease, autism, Type 1 diabetes, multiple sclerosis, and lupus. ESCs have not been used in human trials. However, there are promising results in animal trials. If scientists perfect the process of directed differentiation in ESCs, they may be able to apply the technique to a treatment of certain diseases like diabetes, spinal cord injury, Duchenne muscular dystrophy, heart disease, vision loss, hearing loss, and others ("Stem Cell Information," 2015).

Despite all the negative attention stem cell research has acquired, the potential benefits far outweigh the harmful effects. The medical leaps taken from the use of stem cell research are profound and still progressing.

## Methods

Two groups at CSU Stanislaus were surveyed. The first group consisted of 127 students majoring in biology. The students were surveyed from three of the BIOL 1050 lectures. This course is a required prerequisite for the biological sciences major. The survey asked subjects to self-report their major, in case there were students in the course that had a major other than biological sciences. Extra credit was offered for participation in this survey from all the professors teaching the course.

The second group consisted of 165 students majoring in a field other than biological sciences. These students were surveyed from PSCI 1201 and BIOL 1010. PSCI 1201 is a required general education course, so there is generally a wide range of majors from this class. BIOL 1010 is one

of the biology courses students can take to fulfill a general education requirement. The students that take this course are not likely to be biological science majors, since the same general education requirement is fulfilled with the prerequisite BIOL 1050 course. Extra credit was offered from the professors teaching these courses for those who chose to participate.

The survey was accessible through Google Forms, one of the services that Google offers. Anyone with a CSU Stanislaus email address who was sent a link of the survey could participate in the survey. The professors sent the link to the students through their CSU Stanislaus email. The responses were anonymous, unless the student requested extra credit. In these cases, students had the option to include their school ID and the last name of the professor offering the extra credit. While the students' responses were not entirely anonymous with this option, the information was immediately decoupled from the survey responses and only the student ID numbers were sent to the professors who offered extra credit so it could be awarded. The anonymized responses were saved in an Excel spreadsheet on a personal password-protected computer to prevent any personal information being exposed.

The survey included several sections, among them personal information, background knowledge of and attitude towards stem cell research, true or false statements, and final opinions. The subjects were asked for their sex, age, ethnicity, religious affiliation, how frequently they participate in religious activities, major, concentration, minor, total years of college completed, and if any degrees have been completed. The answer format ranged from multiple choice, fill-in-the-blank, and checkmark boxes. Possible ethnicities, religions, years of college completed, and degrees received all provided answers to choose from, as well as an option for "other" with a fill-in-the-blank box.

The section for the participants' knowledge of and attitude towards stem cell research asked how frequently they are updated on stem cell research, where they get their information regarding stem cell research, how well they understand stem cell research, and their attitude towards stem cell research. The frequency of being updated about the research, their understanding of the research, and their attitude towards the research were multiple choice questions. The possible sources of information regarding stem cell research had a list of checkmark boxes and an option for "other" with a fill-in-the-blank box.

The true or false statements sent the subjects to specific pages, depending on their answer. For example, if the statement is false and the subjects answered true, they were sent to a page with information regarding why the statement is false with a citation from a scholarly source. The subject was then given the option to change his or her answer, then was sent to the next true or false statement. If the subject answered the question correctly the first time, they were sent directly to the next statement.

The final opinions section asked the subject whether the benefits of stem cell research outweigh the ethical dilemmas and whether stem cell research should be funded. The answers were in multiple choice format and included yes, no, and I'm not sure as possible answers.

This survey was approved by the University Institutional Review Board.

## Participants

The sample comprised of 292 participants, of which 71.9% were female. The average age of participants was 20.62 years old ( $SD = 4.46$ ) and the subjects' ethnicity was as follows: 39.9% Hispanic, 19.4% Caucasian, 15.8% Asian, 7.9% Middle Eastern, and 2.2% African American, with an additional 14% reporting as multi-racial. Within the sample, 79.6% reported belonging to some type of religious denomination with 68.6% identifying as Christian (Protestant, Roman Catholic, or other). The remaining 20.4% identified as "not religious".

## Results

The study sought to assess what factors correlated with support for stem-cell research, having accurate beliefs about stem cell research, and being able to be persuaded by accurate statements about stem cell research. Several factors were expected to be related with these three different outcome variables, including participants' educational background (i.e., whether or not they were pursuing a major or minor in biology, whether or not they were interested in, and knowledgeable about, stem cell research) and religious background (whether or not they were Christian and/or religious, how often they participated in religious activities). Gender and race were also examined as potential factors affecting attitudes and beliefs about stem cell research.

In assessing support for stem cell research, no significant differences were found between participants with a major or minor in biology, compared to participants without a major or minor in biology. Similarly, it was found that self-reported interest or knowledge related to stem cell research was also unrelated to support for stem cell research. However, it was found that religious activities were negatively related with support for stem cell research,  $r(144) = -.38, p < .01$ . Furthermore, it was found that participants who self-reported as religious were less likely to support stem cell research ( $M = 2.34; SD = 0.48$ ), compared to those who self-reported as not religious ( $M = 2.56; SD = 0.50$ ),  $t(134) = 2.25, p = .03$ . It was also found that Christians, in particular, were less likely to support stem cell research ( $M = 2.34; SD = 0.48$ ) than non-Christians ( $M = 2.50; SD = 0.51$ ), although this difference was only marginally significant,  $t(134) = 1.82, p = .07$ .

It was also found that participation in religious activity was negatively related with the belief that the benefits of stem cell research outweigh the harm,  $r(290) = -.20, p < .01$ , and the belief that stem cell research is worth funding,  $r(290) = -.17, p < .01$ . Christians were less likely to believe that the benefits of stem cell research outweigh the harm ( $M = 2.11; SD = 0.69$ ), compared to non-Christians ( $M = 2.47; SD = 0.55$ ),  $t(271) = 4.24, p < .01$ . Christians were also less likely to believe that stem cell research is worth funding ( $M = 2.47; SD = 0.67$ ), compared to non-Christians ( $M = 2.71; SD = 0.46$ ),  $t(272) = 2.95, p < .01$ .

Religious participants were less likely to believe that the benefits of stem cell research outweigh the harm ( $M = 2.14; SD = 0.67$ ), compared to participants who were not religious ( $M = 2.55; SD = 0.57$ ),  $t(271) = 4.12, p < .01$ . Religious participants were also less likely to believe that stem cell research is worth funding ( $M = 2.48; SD = 0.65$ ), compared to participants who were not religious ( $M = 2.80; SD = 0.40$ ),  $t(272) = 3.52, p < .01$ . Neither gender nor race had any significant effect on support for stem cell research.

To assess accuracy of beliefs about stem cell research, participants were asked to report whether five statements about stem cell research are true or false. On average, participants correctly identified 3.84 of the statements as true or false ( $SD = 1.11$ ). Results showed that whether participants had a major or minor in biology was not predictive of how accurate participants were in their stem cell beliefs. Self-reported interest and knowledge related to stem cell research was also not predictive. However, participation in religious activities was negatively predictive of accuracy of stem cell beliefs,  $r(268) = -.17, p = .01$ . Likewise, it was found that Christians correctly identified fewer statements as true or false ( $M = 3.71; SD = 1.17$ ) than non-Christians ( $M = 4.18; SD = 0.88$ ),  $t(251) = 3.19, p < .01$ . It was also found that those who self-reported as religious correctly identified fewer statements ( $M = 3.74; SD = 1.14$ ) than those who self-reported as not being religious ( $M = 4.32; SD = 0.82$ ),  $t(251) = 3.40, p < .01$ . As before, no relationships were found with gender or race.

If participants held inaccurate beliefs about stem cell research, they were directed to “corrective statements,” which contained accurate information about stem cell research to correct for these inaccurate beliefs. Participants were asked if they were “persuaded” by each of these corrective statements. From this, it was calculated what percentage of the time participants were persuaded by these corrective statements. On average, participants were persuaded 41.26% of the time. An independent-samples *t*-test revealed that participants with a major or minor in biology were more likely to find corrective statements persuasive ( $M = 46.91; SD = 45.75$ ) than those without a major or minor in biology ( $M = 35.84; SD = 40.89$ ), although this difference was only marginally significant,  $t(196) = 1.80, p = .07$ . Correlational analyses revealed that neither interest, knowledge, nor support for stem cell research was related with the persuasiveness of the

corrective statements. It was found that participation in religious activities was negatively related with finding the corrective statements persuasive,  $r(197) = -.14, p = .05$ . However, neither being Christian nor being religious in general was related with the persuasiveness of corrective statements. Once again, gender and race had no discernable effect.

### Miscellaneous Findings

Participants who had a major or minor in biology reported greater knowledge about stem cell research ( $M = 2.05; SD = 0.66$ ), compared to participants without a major or minor in biology ( $M = 1.79; SD = 0.61$ ),  $t(290) = 3.55, p < .01$ . Participants who had a major or minor in biology reported greater interest about stem cell research ( $M = 2.10; SD = 0.83$ ), compared to participants without a major or minor in biology ( $M = 1.67; SD = 0.61$ ),  $t(290) = 4.68, p < .01$ .

Belief that stem cell research is worth funding was found to be positively related with the number of statements participants correctly identified as true or false,  $r(268) = .29, p < .01$ . It was found that the belief that the benefits of stem cell research outweigh the harm was positively related with the number of statements participants correctly identified as true or false,  $r(267) = .13, p = .04$ .

### Conclusions and Implications

A possible hypothesis from these results is that biology majors are more likely to be persuaded by accurate statements about the research due to exposure of controversial research topics and scientific information. By altering the general education requirements, more students could potentially be exposed to these topics. California State Universities require that all majors take specified courses in various disciplines as GE requirements. One area for CSU Stanislaus is B2 Biological Sciences under Natural Sciences and Mathematics. The courses listed vary depending on academic year. They are rudimentary courses that skim the basics in fields involving biology (i.e., genetics, botany, zoology). These courses could expand their topics in controversial areas of research in these fields. The added exposure could have an influence on the opinions and on the understanding of stem cell research and furthermore, influence the support for the research.

### Discussion

The survey has several inevitable drawbacks. One involves the perspectives of the subjects. Some of the questions require a subjective response, disabling accurate

interpretation of the results. For example, one of the questions asks how frequently the subject stays up to date on stem cell research. The options were always, often, sometimes, rarely, and never. The responses to this question were based on opinion rather than fact.

Another drawback involves the qualitative analysis. It is difficult to assess the subjects' understanding of the research. There was a subjective question regarding how well the subject feels they understand stem cell research and there were five questions used in determining the subjects' understanding. This is not enough information to determine one's understanding of the research.

The survey has a slight bias, which might have influenced the subjects' answers. This may have skewed the data. The survey was geared more towards supporting the research, as opposed to being against the research or

remaining neutral. Those who had yet to form an opinion could have been swayed towards supporting the research.

The sources of information regarding stem cell research do not necessarily constitute accurate or inaccurate information. For example, a professor could provide inaccurate information regarding the research or non-scholarly media may provide accurate information regarding the research.

The participants were all from CSU Stanislaus and, therefore, represented a specific population. Those outside of the university were not represented. This includes various education levels, religious views, ages, ethnicities, and even geographic location.

Males were underrepresented in the sample. Females made up 71.9% of the sample, which could have altered the results.

## References

Lyerly, A. D., Steinhauser, K., Voils, C., Namey, E., Alexander, C., Bankowski, B., Cook-Deegan, R., Dodson, W. C., Gates, E., Jungheim, E. S., McGovern, P. G., Myers, E. R., Osborn, B., Schlaff, W., Sugarman, J., Tulskey, J. A., Walmer, D., Faden, R. R., & Wallach, E. (2008). Fertility patients' views about frozen embryo disposition: Results of a multi-institutional U.S. survey. *PubMed*, 93(2), 499-509. doi: 10.1016/j.fertnstert.2008.10.015

Murnaghan, I. (2014). *Creating embryonic stem cells without embryo destruction*. Retrieved from <http://www.explorestemcells.co.uk/creating-embryonic-stem-cells-embryo-destruction.html>

*Stem Cell Information*. (2015). *Stem Cell Basics*. Retrieved from <http://stemcells.nih.gov/info/Pages/Default.aspx>

# A circular process for understanding humanity: The interdependency of group narratives and individual narratives

Joslyn Hillberg\*

B.A. Candidate, Department of Communication Studies, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 5 April, 2017; accepted 19 July 2017

---

## Abstract

The purpose of this article is to identify the process of understanding humanity as circular. In a society that depends heavily on labels and categories when regarding people, we must look beyond groups and recognize people as individuals. This can be done by listening to their personal narratives. Narratives are powerful for provoking empathy and understanding. The process becomes circular when the practice of understanding the individual turns to the task of acknowledging how one's social group affiliation impacts one's lifestyle. *Humans of New York* is a photoblog that works to humanize people in society. The blog's focus on a few specific series illustrates the need of groups for individuals and individuals for groups in the process of understanding their purpose and existence. One relies on the other, and as the audience is drawn toward understanding, a growth of empathy arises for others in society.

*Keywords:* identity, stereotypes, art, empathy

---

It is dangerous to wear a head-covering today in the United States. Personal experience or knowledge of current events has frightened many Americans into a distrust of another group of people, whether that group is acknowledged as Muslims, refugees, or Middle Easterners. The image below is of a young Syrian woman who is now living in North Carolina. There is no doubt that throughout her life in America she will be scrutinized for what she wears, how she speaks, or the way she lives, whether such



© Brandon Stanton

judgements are made vocal or not. The first impression of her identity is to see her as “that Muslim,” “that refugee,” or “that Middle Easterner.” But, she is more than the group with which she identifies. What if people knew that she received a master's degree at a German University and graduated at the top of her class? Or that she has a beautiful young daughter that she is raising on her own? What if people knew that she has experienced heartache as a young widow after her husband was killed in an automobile accident? This woman is a refugee, but she is also a human being; she is an individual. She has a story to tell that distinguishes her from her culture

and religion. However, her affiliation with a group is also a component of her identity and affects her lifestyle. To understand her as a Syrian refugee in America, we need to look at who she is as a person; yet to see her as an individual calls for an acknowledgement of the culture group that influences her identity.

The claim I am making in this article is that understanding humanity is a circular process; to understand an individual we must recognize the group with which they identify or are perceived to be associated with. However, to understand a group we must acknowledge the individuality of those who comprise it. To support my claim, I will be exploring the photographic journalism series *Humans of New York*. The founder and photographer of the project, Brandon Stanton, emphasizes the humanity of groups and individuals through the combination of text and visual imagery. The various series he has conducted include “Invisible Wounds” (veterans of the war in Iraq and Afghanistan), “Pediatric Cancer,” “Inmate Stories,” “Syrian Americans,” “Refugee Stories,” and most recently, the neighbors of “Macomb County” (a blue collar suburb). The aforementioned example is from the “Syrian Americans” project. The woman's narrative was featured on *Humans of New York* in December of 2015.

The idea of circular reasoning as a method for understanding humanity is important to research, especially given current political and social dynamics, because people interact with each other every day. Interactions are governed by presiding social rules and perceptions that alter how individuals view each other and proceed with

\* Corresponding author. Email: [jhillberg1@csustan.edu](mailto:jhillberg1@csustan.edu)



engagement. The simultaneous intertwining and separation of a categorized group and an individual should be studied in order to begin the process of understanding beyond social prejudice and labels. *Humans of New York* is at the forefront of this movement.

What makes the method presented in this piece different from other methods is that two separate points of interest (the individual and the collective) are being examined in conjunction and codependence, needing each other for complete understanding, which creates a circular process for understanding humanity.

This essay will begin with an overview of the case study that I believe to be at the center of this process, *Humans of New York*. I will continue by defining the term “understanding” for the purposes of this piece, in order to provide clarity and specificity. Next I will stress the significance of narration to explore how people express their individuality, and follow this with a look at the relationship between text and image as the method used by Stanton to share narratives and introduce understanding.

## **Humans of New York**

This study was inspired by the popular photoblog *Humans of New York*, a project begun by photographer Brandon Stanton in 2010. The modus operandi of the project is to photograph the residents of and visitors to New York with the intention of sharing their stories online via the *Humans of New York* website and social media accounts (i.e. Instagram and Facebook). *Humans of New York* has amassed a huge following of people from all over the country and all around the world. As of November 2016, *Humans of New York* has 6.1 million followers on Instagram and 18 million likes on Facebook; these figures were observed on the *Humans of New York* social media account profiles.

In its early stages, *Humans of New York* was simply a collection of photographs depicting faces, fashion, friendships, family, and the joy (or sorrow) of everyday living. As it has progressed, *Humans of New York* evolved from a simple photo project into a massively popular photo blog that reaches millions of people. As it has risen in popularity, Stanton has allowed his platform to introduce a more purposeful theme; he still walks the streets at random, but he also has begun to incorporate isolated series of subprojects into his feed. His website writes that these concentrated stories “focus on specific populations, examining their experiences and the challenges that they face.” Stanton has partnered with other established projects and institutions to bring awareness to the issues delineated through his photo series, as well as make known the foundations who are striving to provide support to the subjects involved. The organizations he partners with benefit from his public endorsement of their efforts, which

enables them to continue the work they had begun with more support from the American people. Many of the specified groups shared on *Humans of New York* are based in America, although he has included a group of people from his time abroad in Europe as an additional focal point of his series.

Stanton has been inclined to capture the intrigue and humanity of his subjects not only in visuals, but in words as well. He initiates conversations with the people he photographs and asks them questions, the answers to which he presents as a caption underneath their portrait. The captions that Stanton places under his photographs vary in degree of self-disclosure and span a range of emotions. Each is told in narrative form. The purpose of publicizing these stories is to incite a reaction from the audience, drawing them toward empathy for and understanding of others.

## **Understanding others**

In this article, I would like to define the “understanding” of others as the acknowledgement of personal ignorance and recognition that other people can only be fully understood by themselves. Others can choose to share what they are thinking, but we are unable to know with accuracy unless they do in fact tell us; even then we may not wholly comprehend the depth of their internal thoughts. However, by allowing others to speak for themselves, it is easier to dismiss the stereotypes promoted by society that hinder our understanding of others; the process of understanding begins within the self. We must alter our views of others rather than expect them to align with our misconstrued perceptions of them. Spencer (2015) stated that the first steps for remedying our errors in perception begin with “opening ourselves up to new worldviews, perspectives, and experiences. It means being self-aware enough to notice when we are failing to understand someone and then taking steps to expand our perspectives” (p. 689). The responsibility of embarking on a journey of understanding is one that falls on us; change cannot happen until we first allow ourselves the act of internal transformation.

Groups of people are often stereotyped in society. It is not unusual for the actions of a few who are vocal about their affiliation to affect a group’s image and reputation. *Humans of New York* attempts to change the negativity attributed to groups by breaking them down to showcase individual members. The audience is introduced to personal anecdotes – an inside look at the people who make up the group in question. By viewing people one-on-one, it is easier to recognize them as humans and their group as a label. *Humans of New York*, by focusing on individual people one at a time, also establishes the important impact of groups on an individual’s story. The influence of a group, whether it be racial, religious, gendered, etc. contributes to one’s lifestyle and decisions. The group must be

understood as a pervasive force on the character of a person, but it also must be remembered that that person is merely a representative of their group who has an individual story to tell.

### The significance of narration

It is important to look at the method in which the subjects of *Humans of New York* relate their life experiences to Stanton; their choice is to dictate a narrative rather than simply outline the happenings of life. I would argue that narration is the most effective way of producing empathy and understanding in others. In "Narrative Theory and Criticism: An Overview Toward Clusters and Empathy," the authors write that they want "researchers to explore, interpret and assess narrative and narrative clusters by way of extended empathy, a goal for expanding horizons toward understanding self and others" (Clair, et al, 2014, p. 1). Narration is inherent in human beings and resonates strongly when passed between individuals.

Taking a moment to address the influence of the everyday life on narration is beneficial for recognizing the contribution simple moments and actions have on the greater and personal narratives at hand. The everyday life is "a dimension of human experience rather than an abstract category" with "indeterminacy as the everyday's defining characteristic" (Sheringham, 2006, p. 16). Despite the presence of routines, habits, and expectations, what happens on a daily basis is undetermined and constantly changing. One could assume the tediousness of repetition, and resign oneself to the fact that one's life is not as remarkable as that of another; however, in the unassuming variety of daily life, the remarkable can be observed when desired.

*Humans of New York* focuses on the lives of individuals as they go about their day-to-day activities. Each subject has his or her own experiences to share, which are shaped by their own personal histories. Sheringham (2006) writes that "...the everyday is all around us, yet we cannot 'arise and go' there...it is where we already are, although we do not see it" (p. 21). I think that Stanton's interactions with people during their day-to-day lives inspires them to focus on what they can see as remarkable in their own experiences.

de Certeau (1984) talks about how stories begin with footsteps (p. 97). Life must be walked to create one's tale. In a sense, I feel as if stories themselves are footsteps of the larger narrative of life. They are singular pieces that are woven together to make a path headed toward deeper understanding of a place, whether that "place" is physical or conceptual.

Narrations that are acknowledged as contributors to something greater than the self are given to others as a referential tool for life and understanding. The audience of a narrative become a part of an individual's narrative by

accepting it into the collective. The role of the audience is to engage with the text, whether or not this engagement occurs as the author had hoped. It is my opinion that the implied auditor(s) of *Humans of New York* are the individuals in the world who have already come to the realization that there is more to life and humanity than they know it; a mind must be at least partially open to new information before it can accept some of the revelations that *Humans of New York* presents. The engagement of the audience with the narratives of others helps to establish the narrative's meaning, intentionally desired or not.

Stanton is not biased when it comes to which narrations he shares on his blog; he does make known his individual political preferences, but if a subject of his shares a story that conflicts with his own interests, he continues to share it *as is* with the public. The goal of *Humans of New York* is not to influence people to believe one way or another, but to acknowledge that people are different and believe in an assortment of various things; we are divided by individual worldviews and personal opinions, but everyone still possesses the ability to form these private attitudes on their own.

Audience's possible responses to the narratives of others may be narrowed down to two basic reactions: agreement or disagreement. It could be argued that there is neutral ground, but if someone is not sure whether or not to agree with someone else, then it is a form of disagreement. Reactions to a narrative say just as much about the audience as it does of the narrator. The form of a narrative falls under the science of the subjective; narratives are the result of interpretation by the speaker and call for additional interpretation from the listener. The implied auditor will factor in his or her own beliefs and experiences before weighing the narrative, eventually reaching a conclusion of agreement or disagreement.

Fisher (1984) advocates examining stories by exploring their rationality, which can be held against two measurements: narrative probability and narrative fidelity (p. 305). Narrative probability questions the story's coherence and consistency with itself, while narrative fidelity explores how it fits within the social domain in relation to reality and the audience. Evaluating a narrative by these standards ensures its relative accuracy to and impact on other narratives.

Regardless of the outcome of the audience's appraisal of a story, narration is powerful in that it prompts people to listen, to think, and to be exposed to the opinions of others. It also encourages internal assessment when placing judgement on the narrations of others.

In his series *Inmate Stories*, Stanton interviewed inmates at multiple prison complexes in the East; he heard about various crimes committed that led to their incarceration. Many stemmed from drug abuse or dealing, others were the result of murder. The stories they narrated reflected their humanity because they dealt with so much more than the action(s) that landed them in prison. More

than one person talked about how they were arrested for illegally dealing drugs even though they had never taken them themselves. “It’s really tough to say ‘no’ when there are no other options for money. So I agreed.... My job was to maintain the vessel and help load the cargo. I’ve never done drugs in my life” (6/20). A couple people shared what their families were like and what their kids were doing. “My daughter had to raise herself.... She’s got every excuse to be bitter, but she doesn’t even talk about it. She’s got a 4.0 at the University of Virginia right now” (16/20). A popular theme was to talk about rehabilitation – the steps that were being taken to turn their life around. “He’s always correcting my Spanish and giving me quizzes. He used to be an engineer, so he’s been tutoring me in trigonometry. He’s been a blessing to me. He’s helped me to not be so angry” (4/20). One man did not reflect on his crime, but instead what it felt like to be caught in 9/11. “I tried walking down into a subway station.... An attendant was sitting in the booth, watching the television, and she said: ‘They’re gone.’ And that was when I finally felt fear. Until then, it had only been survival.” I think that the reflection of one of the inmates captured their group’s collective humanity in a beautiful manner: “‘We’ve got to find a way to win by losing.’ In the eyes of society, we’ve lost already. Everyone in here is a loser. We can either be angry about it, or we can keep trying to grow” (4/20). To be human is to feel pain, joy, sorrow, and emotion; but to be human is also to change, develop, and become a better person.

As exemplified above, each of those inmates possesses a personal narrative that reflects their own life. The purpose of sharing these individual stories on *Humans of New York* was to break down the stigma associated with those who are incarcerated; the collection of the singular narratives composes the group. But, the group does not suddenly disappear. The labels of “prisoner,” “inmate,” and “criminal” are reevaluated, but all are still a part of the individuals’ narratives. People are made up of multiple groups as well, such as race and gender. Focusing on narratives in a series provides the audience with an outlook that generates empathy for groups that are often misjudged.

### **The relationship between text and image**

*Humans of New York* allows people to present themselves in the narrative form; this is their method of storytelling. However, the method employed by Stanton to share their narration is the combination of textual documentation and visual photography. Regarding text, Nathan Black Rupp (2016) writes that “words are not the meanings themselves, but rather point at meanings” (p. 427). Textual passages implicate meaning portrayed or established elsewhere, including other times such as in the past. Concerning photography, Blood and Cacciatore (2014) note that “Photographs invoke the viewer’s application of internal meaning to an external subject,

creating referents that expand the viewer’s vocabulary of personal symbolism” (p. 225). Images prompt internal memories and opinions that guide a person in the present. Despite the important meaning that each entity offers, the combination of both text and visual creates more meaning than one component on its own because it blends external meaning and internal meaning to establish a well-rounded interpretation that expands society and personal identity.

For example, one can view an image of a shadowed figure standing on a boat with their hand up; is it a him or a her? Is he/she coming or going? Is it a speed boat or a cruise ship? Is the person depicted happy or sad? The viewer can come to his own conclusions. On the other hand, a reader may digest this passage: “Marco solemnly stood at the railing of the ocean liner. This was his first solo journey, and he was nervous about being away from his family for a whole year. He lifted his hand to wave to his mother as the vessel set out from the harbor.” This short description does not give all the details of the event, but provides a more detailed interpretation to the reader than the viewer of the image received. But, the reader must first of all know the English language, as well as understand terms such as “solemnly” and “vessel” before the writing makes any sense to him. There is still room for interpretation, however, such as whether he is studying abroad. The ideal situation would be to reach a conclusive interpretation of the event at hand, and this would be more accurately done if the image and words were combined. When this arrangement is done, the consumer of the work will better know what was meant to be portrayed.

In *Humans of New York*, Brandon Stanton publishes a multitude of photographs depicting people in moments of their daily life, whether it be walking in the park, sitting on a bench, petting their dog, holding hands, etc. These images are sweet and well-portrayed, but the audience’s understanding is limited to their own knowledge and experiences. But, when Stanton adds a caption to his photographs (provided to him by his subjects), suddenly the images have more meaning and depth to them. The audience is able to understand backstories, emotion, and thoughts. The words themselves do not inspire this comprehension; if we saw only the written passages, we would still conjure up our own mental images based on our own experiences. The combination of both photographs and text create a space in which we can identify the significance of the work, and consequentially be impacted by it.

Once it has been recognized that meaning of a greater depth can be amassed by the union of the textual and visual elements, it is interesting to wonder which compliments the other, if one does at all. For the purposes of *Humans of New York*, one could analyze that due to its origin as a photo collection turned blog, the text (as a caption) emphasizes the image; conversely, the textual narratives could be perceived as being the dominating component of the project

because they are what evoke passionate responses from the audience.

Consider an image of a Syrian man; it possesses the possibility of drawing upon past experience and inciting fear in some Americans. As a result of terrorism in recent years by “bearded Middle Easterners,” it is not difficult to see past such a person’s individuality and group him by his perceived race or region.



© Brandon Stanton

Stanton attempts to address this erroneous assumption with his series *Syrian Americans*. He catches the eye of the audience with images of Syrian people; visually, they are racially different and trigger a reaction in the audience who consider past experiences to come to an invalid conclusion. Standing alone, the image itself has the power to evoke fear. When a caption is added alongside the image, however, the audience is exposed to a new experience with a Syrian man that could potentially change their initial calculations. “I was studying Literature and French Philosophy when the war came. I wanted to be an Arabic teacher. I didn’t want to be a soldier. I didn’t want to kill anyone.... [So] I ran” (1/10). The addition of this caption (when read by an open-minded individual) brings a new layer to the interpretation of the image. Suddenly, a foreign man is made human in our eyes.

Photography immortalizes moments that may have otherwise been forgotten; it acts as a classification system of information. What is marvelous about photography is that not only does it preserve moments, but it makes new knowledge and experiences available to more people than were present for the moment of capture. Susan Sontag (1977) wrote that “Through being photographed, something becomes part of a system of information.... Photographs do more than redefine the stuff of ordinary experience...and add vast amounts of material that we never see at all” (p. 156). Experience through observation provides opportunity to acknowledge everyday living as a universal activity. Sheringham (2006) wrote: “The photographic practice I am seeking to characterize positions the everyday as a space of possibility: ...a space whose enigmatic character is revealed little by little, by our homing in on it, rather than delving behind it” (p. 94). The character of a subject is present within the image in which they are captured, but as the narrative paradigm explored, the story that belongs to them is best shared through narrative to implore empathy.

The relationship between text and visual applies to the idea of circular understanding because images provide an easy opportunity to group individuals together, even when the photographs capture a single person. The subject is almost immediately interpreted as a representative of a group or groups, whether it be a race, religion, gender or profession. The addition of text affirms or negates what has been assessed by the viewer. The understanding of who the subject is as an individual reminds us of his humanity, while also redefining our opinion of the group. However, we must recognize that his group is also part of his identity and allow him that membership in our analysis of who he is as a person.

## Conclusion

The discussion and analysis in this article was performed with the intent to claim that the process of understanding humanity is a circular one; the understanding of an individual asks that we understand the group they identify with or are perceived to be associated with, but to understand a group we must understand the individuals who comprise it. My use of the term “understand” suggested that we ought to look beyond social prejudices and empathize with others, seeking to know the motivations for their actions and beliefs while allowing them to retain their own stories.

*Humans of New York* is an exceptional project that aims to introduce people to others who many overlook or avoid because of group affiliation or association. I selected the project to illustrate my argument because it breaks down group stereotypes by highlighting individuals, but does not strip the influence of the group from the individual’s identity. The two elements are interwoven and are useful for interpreting each other.

It is my opinion that narratives are the best approach for promoting understanding and empathy; they are effective because they are inherently understandable. Part of the reason that narratives are so relatable is because they discuss things that others can recognize and relate to. Sometimes the lives of other people seem more interesting than our own, and yet they really are not that different at all. They are different enough to distinguish people as individuals, but similar enough to connect humanity on a closer level. Humanity, in a sense, is a group in and of itself.

Another focus of my article considered the relationship between photography and text as the method in which Stanton shared the stories he collected. Combined with the photographs, the textual narratives create an intense meaning that elaborates on the visual provisions. Eye-catching photography allows people to see a person that can be immediately categorized visually; maybe they are wearing prison garb or a hijab, or maybe their hair has fallen out from chemo. After being drawn to the image, the text underneath provides insight to how the subject is

feeling, or gives explanation to the “hows” and “whys” of their life experiences. Plainly and simply, the combination of text and visuals presents a fuller perspective that evokes greater meaning and understanding to the audience; others are presented as people and not just labels.

This particular focus on circular reasoning as a method for understanding humanity is important to research because people interact with each other every day. Interactions are governed by presiding social rules and perceptions that alter how individuals view each other and proceed with engagement. Too often, misunderstandings take place which limit the depth that a relationship could hold. The simultaneous intertwining and separation of the

collective and the individual should be studied in order to begin the process of understanding beyond social prejudice and labels. The exposure to new ideas and different points of view is beneficial for individual growth by the audience and subjects. Study in this area would contribute to the enlightening of members of society, creating a better environment for living. The importance of the method presented in this article is that two separate points of interest (the individual and the collective) are being examined in conjunction and codependence, needing each other for complete understanding, which creates a circular process for understanding humanity.

## References

- Black, E. (1970). The second persona. *Quarterly Journal Of Speech*, 56(2), 109-119.
- Burgchardt, C. R. (Ed.). (2010). *Readings in Rhetorical Criticism* (4th ed.). State College, PA: Strata Publishing.
- Clair, R. P., Carlo, S., Lam, C., Nussman, J., Phillips, C., Sánchez, V., & Yakova, L. (2014). Narrative theory and criticism: an overview toward clusters and empathy. *Review Of Communication*, 14(1), 1-18.
- de Certeau, M. (1984). Walking in the City. In *The Practice of Everyday Life* (pp. 91-110). Los Angeles, CA. University of California Press.
- Fisher, W. R. (1984). Narration as a human communication paradigm: The case of public moral argument. In *Readings in Rhetorical Criticism* (4th ed.). C. R. Burgchardt (Ed.). (2010)
- Gallagher, S., & Hutto, D. (2008). Understanding others through primary interaction and narrative practice. *The shared mind: Perspectives on intersubjectivity*, 17-38.
- Humans of New York. [ca. 2010]. In Facebook [Public Page]. Retrieved November, 2016, from <https://www.facebook.com/humansofnewyork/>
- McCloud, S. (1994). Show and Tell. In *Understanding Comics: The Invisible Art* (pp. 138-161). New York, NY. HarperCollins Publishers.
- McGee, M. C. (1980). The "Ideograph": A link between rhetoric and ideology. In *Readings in Rhetorical Criticism* (4th ed.). C. R. Burgchardt (Ed.). (2010)
- Rupp, N. B. (2016). The rise and fall of metaphor: A study in meaning and meaninglessness. *Semiotica*, 2016(213), 419-433. doi:10.1515/sem-2015-0131
- Sheringham, M. (2006). The indeterminacy of the everyday and Surrealism and the everyday. In *Everyday Life: Theories and Practices from Surrealism to the Present*. Oxford, NY. Oxford University Press.
- Spencer, A. C. (2016). Stories as gift: Patient narratives and the development of empathy. *Journal Of Genetic Counseling*, 25(4), 687-690. doi:10.1007/s10897-015-9886-9
- Stanton, B. (n.d.). Series. Retrieved Nov., 2016 from <http://www.humansofnewyork.com/series>
- Wilson, A. (2012). What is a text? *Studies in History and Philosophy of Science*. 43. 341-358.

# Children's behavioral response during preparedness activities

Astrid C. Itzep-Lopez\*

*B.A. Candidate, Department of Psychology, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

A disaster can occur anywhere and can impact anyone. Not every disaster can be prevented but preparation can be done beforehand. It is important to teach children how to prepare for a disaster because they are the most vulnerable age group. This pilot study examines two different groups; the first group is a set of parents whose children attend the Child Development Center and the second group is children whose parents agreed to take a survey and allow their child to be observed during their lockdown drill. Parental participation in the children's education on preparing for a disaster was recorded through a survey regarding "at home" education and preparedness for disasters. The survey consisted of questions regarding about their participation at school and how informed they were about the school's protocols. Young children, from the ages of three to four years old, were observed during a lockdown drill at the Child Development Center. Children were interrupted during play time in order to conduct the drill in accordance with the school's policy. The children's behavior and emotional response during the drill was recorded. This pilot study needs to further explore programs that may be offered at school for parents regarding emergency preparedness at home or addressing challenges when children who are not well at home or at school regarding disaster preparedness. Further examination is needed on follow ups with parents done by the school, if any, concerning a child's behavior or emotional response during the drills.

*Keywords:* disaster preparedness, children, emergency drills, psychology

---

Earthquake, lockdown, and fire drills are performed at the Child Development Center located in California State University, Stanislaus. Emergency procedures are in place if an emergency were to occur. Preparing staff, parents, and students for a disaster emphasizes the safety of everyone who might be present at the moment. A natural or technological disaster can cause economic damage and loss of life. Preparing young children would offer them skills they can use to survive future disasters.

Drills scheduled by the Child Development Center are mandatory for children at the center. Throughout the academic school year 2015-2016 around 32 drills were done for fire, earthquake, and lockdown. Are parents well informed about when the drills will be occurring and how many times they will occur? "There are a number of challenges related to parents' planned response to a school-based emergency, including an expected inundation of parents to the schools, lack of communication between schools and parents and language barriers" (Vogel & Vernberg, 1993).

Parents whose children attend the Child Development Center were asked if they provided consent for their children to participate in the pilot study. Parents were also asked to complete a survey regarding "at home" education and preparedness for disasters they did with their children. This survey also consisted of questions that addressed parents' awareness and participation in their children's

school preparedness activities as well as how informed they were about the school's protocols.

Children are taught skills at school and at home as well as in their surrounding environment. I also investigated the children's behavioral and emotional responses toward one of the preparedness activities, the lockdown drill. Young children were observed before, during, and after the lockdown drill.

I predicted that school and home preparedness is an important foundation for children to learn that disasters could occur to them and that the skills given to them are useful during a disaster. In other words, I predict that good communication, practice, and parental involvement is important for children, specifically at a young age, to start learning and picking up skills on how to behave during a disaster.

## Method

### *Participants*

18 children were selected from the Child Development Center located on the California State University, Stanislaus campus. Participants were under the age of 18 and their age range was from 3 to 4 years and included preschool children. No incentives for participation were offered.

---

\* Corresponding author. Email: [aitzep1@csustan.edu](mailto:aitzep1@csustan.edu)

### *Research design*

This was a pilot study that examined two groups: a set of parents who consented for their children to participate in the study and those parents who also took a survey regarding their own participation in their children's school and home preparedness activities. The second group was the children who were allowed to participate in the study which focused on naturalistic observation of the behavioral response of young children during an earthquake drill. This study observed behavioral responses, including both emotional and physical responses, that children displayed throughout the drill. All participants were required to participate in the mandatory drills that have been set by the institution but participants were able to discontinue participation in the study if they chose to do so.

### *Measures and materials*

The material used for the study was a Parent Survey which consisted of thirteen questions regarding home discussions, preparedness activities, and their awareness of their child's school preparedness activities. There were no open-ended questions for parents to further explain their responses. Most questions had three possible answers which were Yes, No, and Not Sure. Children were observed during their playtime, when drill which was announced, and after the drill was completed and the researcher took notes on the children's behavior.

### *Procedure*

Participants who were interested in participating were able to gain more information about the study in the consent form and in person to receive an explanation of the research on site. The parents were given two copies of the consent form; one copy was signed if they agreed to complete the parent survey to allow their child to be observed, the second copy was for their personal records. After the consent forms, the next step was the parent survey in which some parents were allowed to take it home if they did not have enough time to complete it on-site or wanted the other parent to complete the survey. Once the parent completed the consent form and survey, they were debriefed. During the debriefing process they were thanked for their participation and the purpose of the study was further explained to them. It was clarified to them that the study's purpose was to examine factors related to behavioral response to preparedness activities.

### **Results**

The survey that parents responded to had questions regarding at home discussions, preparedness activities and if they were aware of their child's school preparedness activities. According to the Child Development Center Handbook emergency information such as first-aid, safely equipment, and evacuation routes were posted in visible

areas throughout the Child Development Center, therefore, emergency information would be quite visible. Posting places included staff bulletin boards, near office telephones, and by classroom exit doors. A question in the survey was "Does the school your child attend share information regarding emergency plans with you?" Most parents answered either no or not sure as compared to yes. Those same parents who answered no or not sure as well as few who answered yes to the previous question were also either not sure or answered no for the following questions: "Are you aware how often earthquake, fire, and lockdown drill occur at your child's school?" and "Are you an active parent at your child's school regarding preparedness activities?" Beside the survey results, on site observations showed that parents were in a hurry to drop off or pick up their children because of other responsibilities. Parents were not always available to drop off or pick up their children and other family members did so.

On the day of the drill, staff members at the Child Development Center explained that a lockdown drill would be taking place later that day. Children played carefree without worrying about the announcement that was made prior to their playtime. During playtime, a staff member announced that the lockdown drill was beginning and that it was important for the children to follow instructions. The children were asked to form a line and follow the staff into the building. Once they walked into the building they went to an interior room and, once there, the door was closed and the lights were turned off. Children were asked to stay quiet. While observing, I was taking notes on the participants' behavioral responses. The children did not show any fear but instead were playful and giggling with their peers. There were no children who demonstrated anger or sadness. The children asked questions about why they were doing what they were doing after the drill was complete. The drill was less than five minutes. The children's emotional responses and how they acted upon those emotions was an important component of their overall behavioral response but unfortunately not enough was recorded.

### **Discussion**

The process of having parents sign the consent form and fill out the survey took more than a week to complete. One issue that arose was that the drills are mandatory and a parent who did not consent made it difficult to remove the child since it involves a group of children and a policy implemented by the institution. There was a parent that did not consent for their child to participate but fortunately the Child Development Center was able to step in and allow for the study to continue. Another issue was that children were picked up by another family member and not the parent therefore some surveys were completed by another adult or taken home and not brought back. Parents were often in a hurry and it was difficult to reach out to them since

sometimes they would come in early or late to pick up their child when the researcher was not available. It was also pointed out by a parent that the wording of some of the survey questions were either incorrect or too general.

Further research would benefit from a larger sample size and a broader age group. The parent survey could be expanded to include more specific instead of general questions. Instead of trying to catch parents during pick or drop off time it would have been a better option to attend a parent meeting so the researcher is able to interact with parents in a more relaxed setting and answer any further

questions they might have. Additionally, the number of participants did require more than one researcher to be present during the observation to better record everything or have a video recording to later examine in more detail. Implementing programs that may be offered at school for parents regarding emergency preparedness or planning that can be used at home would also be beneficial. Further examination is needed on follow ups with parents done by the school, if any, concerning a child's behavior or emotional response during the drills.

## References

- Hambrick, E.P., Rubens, S.L., Vernberg, E.M., Jacobs, A.K., & Kanine, R.M. (2014). Towards successful dissemination of psychological first aid: A study of provider training preferences. *The Journal of Behavioral Health Services & Research, 41*, 203-215. doi:10.1007/s11414-013-9362-y
- Klein, T.P., Devoe, E.R., Miranda-Julian, C., & Linas, K. (2009). Young children's responses to September 11<sup>th</sup>. The New York City experience. *Infant Mental Health Journal, 30*, 1-22. doi:10.1002/imhj.20200
- Rubens, S.L., Vernberg, E.M., Felix, E.D., & Canino, G. (2013). Peer deviance, social support, and symptoms of internalizing disorders among youth exposed to Hurricane Georges. *Psychiatry: Interpersonal and Biological Processes, 76*, 169-181. doi:10.1521/psyc.2013.76.2.169
- Vogel, J.M., & Vernberg, E.M. (1993). Psychological responses of children to natural and human-made disasters: 1. Children's psychological responses to disasters. *Journal of Clinical Psychology, 22*, 464-484. doi:10.1207/s15374424jccp2204\_7



# Learning disabled and gifted: The social and emotional aspects of inclusion

Aubrey Glidden\*

*B.A. Candidate, Department of Liberal Studies, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 15 April, 2017; accepted 19 July 2017

---

## Abstract

This article explores how students with learning disabilities and students with gifted abilities share experiences involving the social and emotional aspects of inclusion. Inclusion refers to the inclusion of students with special needs into a K-12 general education classroom, which is the inclusive classroom. The inclusive classroom is defined in special education as a classroom that includes students with special needs with their average-achieving peers for one hundred percent of instruction throughout the school day. Placement of students with special needs into inclusive classrooms and basing this placement on the students' needs are related to establishing and placing the students in their least restrictive learning environment. This environment is determined by the student's individualized education plan team, which sets and helps the student reach attainable goals in his or her education. Using labels to identify both students with learning disabilities and students with gifted abilities within the inclusive classroom leads to the negative stigma surrounding these students and may contribute to their shared social and emotional experiences. The available literature suggests, but does not specifically compare, the shared experiences these two groups of students face regarding the effects of inclusive classrooms and are as follows: (a) lack or delay in acquiring developmentally appropriate social skills, (b) low self-esteem and feelings of loneliness, and (c) a lack in motivation or behavioral problems. Research was conducted in the form of semi-structured interviews of two participants. Two male adults who experienced inclusive classrooms throughout their K-12 education, one a student with a learning disability and the other a student with gifted abilities, were interviewed. These semi-structured interviews displayed two firsthand experiences in K-12 inclusive classrooms, aligning with the available literature's suggestions and establishing a more concrete comparison of these two groups' social and emotional experiences.

*Keywords:* learning disabled, gifted, inclusive classroom, K-12 education

---

## Introduction

The inclusive classroom setting of special and general education encompasses many types of students. Looking into inclusion of students with gifted abilities and students with learning disabilities in general education, these two groups of students are often only viewed on opposite ends of an academic spectrum. The students with gifted abilities are placed on the higher end of the academic spectrum, while the students with learning disabilities are often placed on the lower end of the academic spectrum when compared to their same-aged peers. However, it is also seen that the inclusive classroom leads to shared social and emotional experiences for these two groups of students. Is the inclusive classroom setting the best solution for these students with divergent special needs? Furthermore, are these students placed in the least restrictive environment (LRE) to maximize and reach their academic and personal potential? Is the LRE of the inclusive classroom able to ensure positive experiences and a supporting environment provided by the students' teacher and peers? These questions led to the investigation of inclusive classrooms, specifically focusing on the social and emotional

experiences of students with gifted abilities and students with learning disabilities.

## Literature review

The goal of special education is to determine what the least restrictive environment (LRE) for the student with special needs is and to place the student in this environment, which is thought to be the setting in which the student will maximize and reach his or her potential, both academically and socially. The LRE is defined as the "setting most like the one in which other students are educated, in which a student with a disability can succeed when provided with the needed supports and services;" this leads to "the presumption in current law that the LRE for most students is general education" (Friend, 2013). This definition leads most educators and professionals to push for the inclusion of students with special needs in the general education classroom, creating the inclusive classroom. The LRE is established and specifically defined in light of the students' needs by supportive individualized education plan (IEP) teams. The IEP team includes the

\* Corresponding author. Email: [aglidden@csustan.edu](mailto:aglidden@csustan.edu)

student, the student's parents, the student's teacher, whether a general or a special education classroom teacher, the school's psychologist or counselor, and the school's principal. The IEP itself is the growing and changing plan for the student's education that will help the student reach the goals set by the IEP team.

Inclusion is the overall goal that is set for students with special needs as it focuses on helping students with special needs acquire the skills and abilities needed to succeed in the same environment as their same-aged, average-achieving peers. Inclusive classrooms encompass students with and without special needs and are considered general education classrooms. Students who are placed in inclusive classrooms are educated by the general education teacher throughout the day and may or may not receive other services, such as being pulled out for part to the day to receive additional resource training or individualized academic help. In many cases, including the special needs student in the general education classroom is the only option for a school. Traditionally, however, inclusion is the way that the "adults and students in a particular school think about teaching and learning for all students" (Friend, 2013). Inclusion of exceptional youth and children, whether they be diagnosed as gifted or have a learning disability, is all based on the idea of creating the LRE for the student's learning, yet literature is limited to "addressing codes, standards, and statements of principals and beliefs" (Wheeler & Richey, 2014). Wheeler & Richey (2014) also discuss how it is "surprising to find that natural environments and inclusion receive little attention in ethical codes and standards." This expresses the concern that, although inclusion is the goal of special education, there are minimal guidelines and procedures regarding how to effectively decide on the LRE for students with special needs. This directly affects students with special needs who are often placed in inclusive classrooms, such as students with gifted abilities and students with learning disabilities.

Students with learning disabilities are most often educated in the inclusive classroom as their disability is classified as mild, rather than moderate or severe, and affects specific academic abilities rather than physical abilities. The federal definition of learning disabilities, according to Individuals with Disabilities Education Act (IDEA), is as follows:

"a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculation, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia" (Friend, 2013).

Giftedness is defined on a state-by-state basis as no nationally accepted definition is clearly stated within IDEA. However, giftedness is defined by the National Association for Gifted Children (NAGC) as "someone who shows, or has the potential for showing, an exceptional level of performance in one or more areas of expression" (Friend, 2013). These two definitions are important for the correct identification of special needs students. Inclusion may be the most effective placement, or LRE, for students when the teachers know what each group of students needs in order to succeed in an inclusive classroom of their same-aged or average-achieving peers.

Currently, the Turlock Unified School District of Stanislaus County in California identifies their students with gifted abilities by using a test that only determines one aspect of giftedness: the intellectual performance and capability section. This excludes musical and artistic forms of gifted abilities such as writing abilities and expression through the arts. Students with learning disabilities are identified using IDEA's definition administered by a team of professionals working alongside both teachers and parents of these students. Inclusion is present within many of Turlock Unified School District's elementary schools, where a system of pulling out students for resource help and modified instruction is utilized most frequently. However, this pull-out system may contribute to social and emotional stigmas created by the labeling of these students. Ideally, students should be placed into an inclusive classroom where the teacher has the ability and knowledge to diversify curriculum to the varying needs of the students. With appropriate accommodations and modifications to curriculum and assignments, students will be better able to achieve their IEP academic goals. However, negative social and emotional aspects of the inclusive classroom may still ensue. These social and emotional aspects include lack or delay in developmentally appropriate social skills, low self-esteem and feelings of loneliness, and a lack in motivation or behavioral problems.

Both students with learning disabilities and gifted abilities can lack or have delays in the development of social skills, leaving them with fewer friends and at a higher risk for bullying. Friend (2013) discusses this deficit of interpersonal relationships among students with gifted abilities and learning disabilities as an insufficient ability of correctly receiving, interpreting, and responding to same age peers or others in the inclusive classroom setting. Pavri & Luftig (2000) also address the lack of social skills and delayed social development of these students, pointing out that they are rejected and ignored by these same-aged peers because of an inability to interact. Vaughn, Elbaum, & Schumm (1996) consider the low peer acceptance and alienation that occurs among students with learning disabilities and gifted abilities with their average achieving peers, arguing it is a persistent issue in inclusive classrooms. This is because these students are placed at a higher risk for dropout than the accepted and sociable

average-achieving students. Students with learning disabilities and gifted abilities share this delay of social skills that hinders peer acceptance as they experience inclusion in the general education classroom. This hindrance in social skills parallels with these students' self-esteem.

Low self-esteem, along with feelings of loneliness and depression, are common in students with learning disabilities and can also be common in students with gifted abilities. Friend (2013) discusses the trouble that students with learning disabilities and gifted abilities have when making and keeping friends. As both groups of students vary in social skill level from their same age peers, friendships are hard for them to form and maintain. For example, students with gifted abilities often find it easier to have conversation and relationships with adults or students older than themselves due to their increased maturity and knowledge level. Pavri & Luftig (2000) address the concept of perceived loneliness among students with learning disabilities and gifted abilities, saying that these students more frequently had feelings of individual loneliness within the inclusive classroom when compared with their peers. Vaughn, Elbaum, & Schumm (1996) look at self-concepts and self-perceptions of students with learning disabilities, finding that they have significantly lower academic self-concept scores than their average or gifted classmates. Low self-esteem and feelings of loneliness experienced by the students with learning disabilities and students with gifted abilities in the inclusive classroom result from deficits in social development. With low self-esteem and lack or delay in social skills, students with learning disabilities and gifted abilities begin to feel disengaged with their peers and activities in the inclusive classroom.

Motivation lacks in both students with learning disabilities and gifted abilities, due to frustration that can lead to behavioral problems. Friend (2013) explains the commonly displayed and continual actions of learned helplessness from students with learning disabilities. Learned helplessness is seen in students when they tend to give up on tasks before even trying, putting little to no effort into their learning as they feel they will fail anyway. The gifted, on the other hand, often have no challenge presented to them within the inclusive classroom's academic content, and tend to lose focus and motivation in this way. Behavioral problems arise from these feelings of frustration and boredom on both ends of the academic spectrum represented by students with learning disabilities and students with gifted abilities in the inclusive classroom. Pavri & Luftig (2000) talk about disruptive or withdrawn behaviors of these students who can become aggressive and negative towards those peers who actively reject them. Vaughn, Elbaum, & Schumm (1996) saw that achievement and behavior influence the students' motivation within inclusive classrooms. Students with learning disabilities

and gifted abilities share a lack of motivation when they are placed in inclusive classrooms, if for different reasons.

Inclusive classrooms, however, can also have positive effects on the social and emotional experiences of students with learning disabilities and students with gifted abilities. Friend (2013) refers to a commonly used term of the least restrictive environment (LRE) as the best environment for all students to experience learning. Seeking and seeing the value in these students with special needs, while also respecting and supporting them is needed in the inclusive classroom from general education peers and teachers alike. Pavri & Luftig (2000) addresses both positive and negative effects of inclusion, discussing the possible positive relationships and self-concepts that may result from the inclusive classroom environment. Yet, there is still a possibility of average-achieving peers and general education teachers who are not as accepting of various learning styles within the inclusive classroom. This is simply due to lack of knowledge regarding these students' special needs. Vaughn, Elbaum, & Schumm (1996) explain positive effects of placing these students into inclusive classrooms, as they can provide improvements of overall social skills and acceptance of peers as this is a common goal of inclusion. Inclusion can combat the alienation and rejection that is more frequent within classrooms and schools who use the pull-out system, which separates the students with special needs from their same-aged peers for specialized instruction.

Inclusive classrooms have the potential to have positive effects on these students with learning disabilities and gifted abilities, but require acceptance and understanding of these social and emotional aspects. Overall acceptance and understanding of each of these types of students in the inclusive classroom is needed and must be displayed by both teachers and students of the inclusive classroom. Inclusive classrooms may not have continual positive effects if the teacher does not actively accept and display this acceptance of diverse learning styles of both students with learning disabilities and gifted abilities to the average achieving students in the general education classroom. Inclusive classrooms can have negative effects on the social and emotional aspects of students with learning disabilities and students with gifted abilities depending on how the teacher addresses their special needs, as well as how the classroom environment support diversity, respect, and friendships between all types of students in the inclusive classroom.

## Method

A convenience sample of two participants, one who self-identified as having gifted abilities and one who self-identified as having a learning disability, participated in semi-structured interviews. These participants are two male adults who were educated in inclusive classrooms for their

K-12 education. The first participant is a twenty-four year old male who was diagnosed in the third grade as a student with the learning disability of dyslexia and attended public and private school in general education or inclusive classrooms in his K-12 education. The second participant is a twenty-three year old male who was diagnosed as a student with gifted abilities when he was in the sixth grade and attended public school in general education or inclusive classrooms throughout his K-12 education. They both attended California schools from 1998 to 2011, leading their stories to align comparatively. Being that both were educated throughout their K-12 experience in inclusive classrooms, it was hypothesized that they experienced similar social and emotional experiences as a student with a learning disability and a student with gifted abilities.

Data collection of these semi-structured interviews was qualitative; the interview procedure involved speaking to the two participants at separate times in a one-on-one environment. As the interviews were semi-structured interviews, the questions allowed for further discussion as conversation occurred. The length of the interview for each participant was from thirty minutes to one hour. The qualitative data collected focuses on the responses of the two adult participants to prepared questions (Figure 1). The participants' responses were based upon reflections on their experiences in K-12 inclusive classrooms in efforts to answer these questions about social and emotional aspects of their learning experiences, such as social skill development, self-esteem, and motivation. The participants' experiences throughout their educational journeys were discussed in-depth as they related to each of these social and emotional aspects. Each case study gives great qualitative insight regarding the participants' experiences and personal observations of the inclusive classroom setting, providing firsthand accounts of experiences in the inclusive classroom.

Pseudonyms were given to each participant; Participant 1 is named Mark and was identified as a student with a learning disability known as dyslexia, while Participant 2 is named John and was identified as a student with gifted abilities. No incentives or compensation was offered and their participation was voluntary. All data was collected through handwritten notes taken during the interviews, as well as voice recordings of the interviews. The voice recordings of the semi-structured interviews were partially transcribed for use in this article. The interview questions are included as Figure 1.

## Results

The following narratives are detailed accounts of the two participants' experiences as former students with special needs. They provide insight into student perceptions about labels, the inclusive classroom, and whether or not they feel they were placed in the least restrictive

environment required to support their academic, social, and emotional development.

### *Participant 1- Mark: Diagnosed with a learning disability*

Mark is a former student who is now twenty-four years old and was diagnosed with dyslexia, a learning disability, when he was in third grade. Mark was raised by both of his parents and has an older brother and an older sister. He grew up in Rancho Santa Margarita of Orange County, California. Mark was educated first in public schools K-6, then in private schools 7-12 in Rancho Santa Margarita. Mark considers his family to be white upper class, in terms of race and socioeconomic status. Mark described his family as "very supportive" of his education and special needs, explaining how they "paid for some private tutoring and help with [his] dyslexia." Mark quickly answered that his interests and hobbies consist of soccer, as well as baseball and *League of Legends*. Mark graduated from CSU Stanislaus and is now an Associate Accountant for a very successful local business.

Mark's feeling toward school varied as he went through his education. Mark explained that he felt "great" at school in elementary, but only "alright" in middle school, and finished by describing high school as "it sucked" for the reason that he was "picked on because of his size." Mark academic performance was average, with A's in subjects he enjoyed and was good at like math, but B's and C's in other subjects. Mark's overall GPA in high school was a 2.9 on a 4 point scale. Mark recounted that his dyslexia made him "hate reading and all the other subjects that had a lot of reading in them." However, when asked if he would have rather been placed in a specialized class for his dyslexia he said no and that he had a choice of being placed where he wanted to be, which was in the general education or inclusive classroom.

Mark feels that he was placed in his LRE by being in the general education inclusive classroom because he was given a choice, and chose this because he did not want to feel different from his same-aged peers. Mark enjoyed the challenge these classes gave him, though he admitted to feeling like he did not fit in socially. This is further explained as Mark described not getting along well with everyone and struggling to start conversations and develop friendships. However, his peers did not know about Mark's dyslexia; only his parents and siblings knew. Mark does not feel that his learning disability affected his social skills directly. On the other hand, Mark felt stupid and judged when he found out that he had dyslexia, affecting his self-esteem in a negative way. This feeling changed with age and as the understanding of his learning disability grew, so did Mark's self-esteem.

Regarding the inclusive classroom, Mark said he did feel too challenged at times with the amount of work he was faced with in school, especially because he had to compensate for the time it took him to read and study for exams. Mark compared himself to his same-aged peers in

the inclusive classroom "all the time" and would rank his self-esteem in his K-12 education as a four out of ten. Mark saw himself as less than average but at times smarter than his peers; he felt smarter in math because his learning disability did not affect him in math like it did in other subjects.

Mark explains that he did lack motivation in school, but knew he had to do his work though he "never wanted to." Mark further discussed his mother, saying she played a big role in motivating him to get his school work and reading done through both positive and negative consequences. An example he used that motivated him was getting time to play outside when he finished his schoolwork. Mark shared that the only reason he never gave up before trying, or exhibited learned helplessness, was because of "incentives" like this. Mark never felt discouraged or encouraged by peers in his class but says they did affect his outlook on school because he "didn't want to be seen as a nerd."

If he was able to do it all over again and change being placed in an inclusive classroom for his K-12 education, he said he would not. However, he would want to have a "different mindset where [he] could see and understand that being different isn't a bad thing and that being isolated or taken away for individualized learning just seems like a bad thing. Of course this all comes with being comfortable with yourself at the age of eight," says Mark. In other words, Mark would not want to be educated in an individualized environment and is glad that he was placed in the inclusive classroom. Mark sees the inclusive classroom as the least restrictive environment for own his learning and is glad he had a choice in where he was placed.

#### *Participant 2- John, diagnosed with gifted abilities*

John is now a twenty three year old and was diagnosed with gifted abilities in the sixth grade. John grew up with two younger sisters and a younger brother and was raised by both of his parents. John says his family was "very supportive and encouraging" in his education. John attended public school for his K-12 education in Turlock of Stanislaus County, California. John considers his family white middle class in regards to race and socioeconomic status. John's interests and hobbies include anime, videogames, *Dungeons and Dragons*, as well as football and baseball. John graduated from CSU Stanislaus and now works as an Accounts Receivable Clerk for a corporate business.

John explains that he felt school was "boring" with some years being better than others and remembers that his main motivation for going to school was to hang out with his friends. John performed well academically, receiving "A's or B's, but mostly A's, and some C's when [he] didn't care;" he obtained a 3.7 GPA on a 4 point scale in high school. John says that he did not want to be in general education or inclusive classrooms because they were "too easy," but that he did not have a choice other than to take

AP classes in high school. John feels that the inclusive classroom was only sometimes the least restrictive environment for him in his education, but overall wishes he "could've gone to a school with an all-gifted class."

Socially, John feels he struggled with starting conversations and forming friendships, explaining that he "made friends through friends of friends." John's peers did know he was gifted but this was because they were gifted, too. However, having others know John was gifted did not affect how his peers felt around him because John feels his elementary school environment embraced the "gifted" label. John never felt rejected or isolated because he always had his few friends. John explains that he felt very comfortable around his peers, but would still grade his social skills at a two out of ten. When he found out that he had been diagnosed as gifted, John admits to feeling "sort of cocky or better than everybody else." However, this feeling has changed with age as John described his "peers caught up to [him] because [he] was lazy." John expresses that he never felt challenged enough in the inclusive classroom, feeling as though he was smarter than his average-achieving classmates. John says he was "very competitive" with his friends when it came to math grades, but did not care about the other subjects. When ranking his self-esteem, however, John gave himself a two or three out of 10.

John describes his motivation in his education as lacking "all the time" because it was "too easy" and he "didn't care." John even stated, "I spent more time figuring out how to not do work than actually doing it." In other words, John would calculate the least amount of work he could do to obtain the grade he wanted. John never felt as though he could not do the work, but would simply not feel like doing it. John's peers did not seem to affect his outlook on school and individual motivation or lack thereof. When asked if he could do it over again, John firmly stated that he would rather have been placed in a separate classroom for students with gifted abilities or in a class where his education could be more individualized.

#### **Concluding thoughts**

The social and emotional aspects of inclusion regarding social skills, self-esteem, and motivation seemed to be closely shared between the two participants, though each had their individual stories and reasoning behind how they perceived their experiences in the inclusive classroom. Mark and John both ranked their self-esteem and social skills at five or below on a scale from one to ten. John gave himself a two for social skills and a three for self-esteem, while Mark gave himself a five for social skills and a four for self-esteem. Both Mark and John also expressed a lack of motivation when it came to school and completing work. Mark lacked motivation in getting started on and finishing his schoolwork at home or in class, but was able to find

enough motivation extrinsically through incentives that were physical rewards, like that of playing outside. John, on the other hand, lacked motivation because the schoolwork was too easy or boring, as it was not modified to his needs as a student with gifted abilities. Each of these scenarios and feelings expressed by Mark and John align with one another and show that there is a case to be made that students with learning disabilities and students with gifted abilities share social and emotional experiences due to their placement in the inclusive classroom.

However, the inclusive classroom is not solely to blame for delays in social skills, low self-esteem, and lack of motivation among students with learning disabilities and students with gifted abilities in the inclusive classroom. Teachers and education professionals need to diversify their curriculum to suit the learners present in their classrooms. When students with gifted abilities and students with learning disabilities are in the same classroom as their average-achieving peers, they need curriculum modified according to their individual needs. In John's case, he needed more challenging assignments, especially in math. An accommodation could have been made for John in which the teacher assigned him an extension to math assignments. For example, John could have been asked to apply a mathematical concept he was learning to the real world and create a problem of his own for the teacher or his peers with gifted abilities solve. This would have kept him interested in school assignments and challenged him a bit more both academically and socially within the inclusive classroom. This would have simulated approaches common in classrooms for students with gifted abilities where project based learning and cooperative learning often lead to active and engaged learning. This may have changed John's view of the inclusive classroom, and thus his want to be placed elsewhere.

As present in both John's and Mark's responses, student choice seemed to be a big factor in whether or not the student felt the least restrictive environment was achieved with the inclusive classroom placement. In Mark's case, because he did have a choice in being placed in the inclusive classroom, he felt this choice was the right one and would choose it again if he could. However, John's case, where he did not have a choice, he felt it was not right for him and would have chosen to be educated in a gifted classroom or in a separate individualized class. Again, within proper accommodations and by diversifying the curriculum, both of these students could have seen the inclusive classroom as their least restrictive learning environment and somewhere they wanted to be placed regarding their learning.

## **Limitations**

There are many aspects to consider when making generalizations from this research. The sample was taken

out of convenience and is very small, being that there were only two participants interviewed. Though the sample size was small and not randomly selected, the qualitative data collected from these two interviews is valuable as a starting point because they provide two firsthand experience accounts of and reflections on being educated in the inclusive classroom. The similarities in the responses of the two participants do indicate some kind of shared social and emotional experiences as taken from being educated within the inclusive classroom. However, further research would be needed to fully solidify this argument.

## **Significance**

The scope of this research involves the broad issue in special and general education of the inclusive classroom setting and inclusion of students with special needs in the general education classroom. What began as questions specific to students with gifted abilities and learning disabilities, exploring their shared social and emotional experiences within the inclusive classroom, has now been expanded into a bigger issue. This issue is whether the inclusive classroom setting is the best solution for these students with special needs. The inclusive classroom, though the end and main goal of special education, may not be the best option for these students. Specifically, these students with special needs are placed in inclusive classrooms because it was determined as the least restrictive environment (LRE) where the student can both maximize and reach his or her potential. In the case of Mark, this was found to be true as he did feel it was the best place for him to learn and grow academically, emotionally, and socially. However, the LRE may not always be that of the inclusive classroom as it does not always ensure positive experiences and a supporting environment. This can be seen in the case of John, as he wished he had a choice as to where he was educated, stating he would have rather been given the opportunity to be educated in a class for students with gifted abilities.

Though the goal of special education is to determine what the LRE for each student with special needs is and to place the student in this environment, the best LRE for the student may not necessarily be the inclusive classroom and general education. It is important for the individualized education plan (IEP) team to correctly assess and determine this for each student. This IEP team must help the student reach the goals that are set by correctly determining and placing the student in the student's true LRE, rather than settling for the easiest, cheapest, or most convenient solution of inclusion and the general education classroom.

Understanding this correlation between students with learning disabilities and gifted abilities can help us to diminish the stigma created from these labels, as all students can be successful within the classroom and in regards to their future aspirations when accepted and

supported by their peers, teachers, parents, and community. Inclusion of students with learning disabilities and students with gifted abilities can be successful in terms of the academic, social, and emotional aspects of the students' lives as long as the general education classroom is truly where the students' LRE is determined and established.

Diversity in abilities within the inclusive classroom can foster a successful and accepting community in which all students feel challenged and hopeful of their future education, but may not be the answer for all students with special needs.

## References

- Friend, M. (2013). *Special education: Contemporary perspectives for school professionals*. Upper Saddle River, NJ: Pearson.
- Pavri, S., & Luftig, R. L. (2000). The social face of inclusive education: Are students with learning disabilities really included in the classroom? *Preventing School Failure, 45*(1), 8-14.
- Vaughn, S., Elbaum, B. E., & Schumm, J. S. (1996). The effects of inclusion on the social functioning of students with learning disabilities. *Journal of Learning Disabilities, 29*(6), 598-608.
- Wheeler, J. J. & Richey D. D. (2014). *Behavior Management: Principles and Practices of Positive Behavior Supports*. Upper Saddle River, NJ: Pearson.

Figure 1: Case Study Semi-structured Interview. This is a semi-structured interview, giving room for discussion and freedom for conversation that may stem from the specific questions listed in this interview, allowing for added information and comments.

Researcher: Aubrey Glidden

Institution: CSU Stanislaus

Date: \_\_\_\_\_

### Participant Name:

- *What is your name?*

### Age:

- *How old are you?*

### Diagnosis:

- *What was your special needs diagnosis?*

### Grade Level Identified:

- *In what grade were you diagnosed?*

### Background Information:

#### Family:

- *Who did you live with when you were growing up?*
- *How many siblings do you have?*
- *How supportive was your family of your education and special needs?*
- *What race and socioeconomic status would you consider your family?*

#### Home:

- *Where did you grow up?*
- *Where were you educated?*

#### Interests:

- *What interests do you have?*
- *What kind of hobbies or pass times do you have?*

#### Current Occupation:

- *What do you currently do for a living?*

### General Education Experience:

- *How would you describe your feelings toward school (K-12)?*
- *How did you perform academically (K-12)?*
- *What was your average GPA (K-12)?*
- *Did you have any favorite teachers or classes? Explain.*
- *Did you want to be in general education classes?*
- *Did you have a choice in where you were placed?*

### Specific Aspects of Education:

#### Least Restrictive Environment, LRE:

Read definition of the term: *(Defined by IDEA, LRE means a student who has a disability should have the opportunity to be educated with nondisabled peers to the greatest extent*

*appropriate.) Explain if further clarification is needed by participant.*

- *Do you feel the classes you were placed in were right for you?*
- *Would you say the least restrictive environment for you was where you were placed in an inclusive classroom?*

**Social skill development:**

- *How many friends would you say you had in school?*
- *Did you struggle with creating conversations or developing friendships?*
- *Did your peers know about your diagnosis?*
- *If so, did this affect how you felt around them?*
- *Did you ever feel rejected or isolated in school?*
- *How was the topic of diversity addressed by your teachers, if at all?*
- *On a scale of 1-10, how comfortable were you around your same aged peers?*
  - *Why? Can you explain?*
- *On a scale of 1-10, in grades K-12, what would you grade your social skills as?*
  - *Why? Can you explain?*

**Self-esteem:**

- *How did you feel about your diagnosis?*
- *Has this feeling changed with age?*
- *Did you ever feel too challenged in the inclusive classroom?*
- *Did you ever feel not challenged enough in the inclusive classroom?*
- *How would you compare yourself to your same-age peers academically?*
- *Did you compare yourself to your same-age peers?*
- *On a scale of 1-10, how would you rank your self-esteem or concept of self?*

**Motivation:**

- *Did you ever lack motivation in putting forth the effort into your learning?*
  - *Why? Explain.*
- *(Learned helplessness) Did you ever give up before trying academically?*
  - *Why? Explain.*
- *Did your peers ever encourage you in education?*
- *Did your peers ever discourage you in education?*
- *How did your peers affect your outlook on school and academics?*

**Concluding Thoughts:**

- *Do you have anything you would like to add regarding your educational experiences as a student with special needs in an inclusive classroom?*
- *If you were able to do it all over again, would you like to be in an inclusive classroom or in a separate classroom setting more specific to your individual learning goals?*



# The role of student anxiety in perceiving instructor behaviors

Griffin Cheek\*

*B.A. Candidate, Department of Communication Studies, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

Communications scholars have done a lot of work in hopes of better understanding the anxiety associated with communication in the classroom. There are studies that make the connection between communication anxiety and the behaviors of instructors in college classrooms. There are also studies that show a link between instructor behaviors and the amount college students like their classes and instructor (i.e. affect). Much of the research into the interpersonal relationship between college students and their instructors has been conducted through surveys conducted by researchers in the social sciences. Those surveys have established the correlation between instructor behaviors and student perception of those instructors. There is no research that asks the students why they perceive instructors the way they do. This study will conduct interviews with college students instead of using surveys. These interviews will create data that can be analyzed to gain a better understanding of the reasons students perceive their instructors the way they do. This study proposes that the factor effecting these perceptions is anxiety caused by the interpersonal communication between the student and the instructor. If the connection between anxiety and college student perception of instructors can be established it will open the door to further research into this dynamic. A better understanding of these factors may lead to strategies to reduce anxiety in this type of interpersonal communication and improve perceptions of instructors. The previously noted research links improved instructor perception to better cognitive outcomes for students. Therefore, a better understanding of the role of anxiety in these scenarios should lead to better outcomes for instructors in the form of improved effectiveness and more positive evaluations. Students should gain increased positive outcomes associated with liking classes, learning more, and getting better grades.

*Keywords:* anxiety, student perceptions of instructors, classroom dynamics

---

## Introduction

Evaluations are distributed to students at the end of every college semester. The University is looking for feedback on the instructors it has employed. Instructors leave the classroom while the students complete the task of transferring their perceptions of the instructors onto paper and stuffing it into some manila envelopes, anonymously. The information goes off to the powers that be for analysis and will affect the universities' view of the instructors' work. This may be an anxiety filled experience for some instructors. This is a small example of the unique relationship between the college instructor and the students in the classes they teach (Chory & McCroskey, 1999). Feelings of anxiety may not be limited to the teachers in this complex interpersonal relationship. Faculty are juxtaposed with students in this environment to facilitate the actual process of learning, yet there is the perception that the instructor is in a controlling position in the college classroom hierarchy. Faculty members are charged with choosing the course materials and assignments, directing class discussions, lectures, group projects and the ever-present grading of them. The instructors are established as experts in the field or subject that is being taught, yet the behaviors the instructors use to create the learning

environment are often not taught to them in schools. Those behaviors are a product of experience, advice from others, personality or even instinct. The effectiveness of those behaviors may vary among faculty members. Students have different ideas of what behaviors are positive or negative. One only has to look at websites that rate college professors to see the far-ranging opinions of college students regarding the instruction that is received. Decisions that are made day in and day out by the instructor are effecting the experience of the students. The students will form perceptions of the instructor based on that interaction. Understanding what those perceptions mean or how they are motivated is important.

## Literature review

### *Student perception*

Students, like most people, will have perceptions regarding the behaviors of others. When students are introduced to instructors in a class, how are the student's perceiving the instructor's behaviors? This perception, and the reaction to it, is an important component of the classroom climate and the learning environment (Galanes, & Carmack, 2013; Johnson, 2009). Gaining an

---

\* Corresponding author. Email: [gcheek@csustan.edu](mailto:gcheek@csustan.edu)

understanding of the motives behind the perceptions is equally important. Some behaviors lead students to positive reactions while others result in negative reactions (Richmond, et al., 1986). Students may not understand the reason they react to a situation positively or negatively. Students may have a reaction that becomes a conflict with a professor in a class. The student will usually describe the conflict as a personal problem, cultural difference, or misunderstanding. In extreme situations, the conflict can get petty, and challenge the competence or integrity of the professor. While the perceptions may or may not be accurate, the motive behind the negative perception may be something the student doesn't understand. There is a difference between contending, "he sucks!" and asking why one might feel that way. The answer is usually rooted in the perception of the behavior of the instructor. This may lead to a question regarding why the student perceives that behavior negatively. Moore et al. found that student ratings are linked to instructor behaviors, that give a feeling of closeness (i.e. immediacy), in the classroom (Moore, 1996). Feedback, regarding these types of perceptions is valued by researchers, professors, and institutions alike. Studies and evaluations are ever-present in the classroom environment to gauge these student reactions. There is the real possibility that the data are being collected without understanding the reasons why students are responding the way they are. While the perception has become highly sought information, the less frequently asked question is why students perceive behaviors in the ways they do. This informs the present research question.

#### *Research question*

What are student motives for perceiving instructor behaviors positively?

#### *Instructor behaviors*

Plax et al. (1986) found that college instructors' behaviors have effects on the experience of students in their classes. Those behaviors can cause apprehension in communication between the instructor and the student (McCroskey, Richmond & Davis, 1986). Instructors' interactions with students are also known to co-create the learning environment (Sidelinger & Booth-Butterfield, 2010). Having an idea of which instructor behaviors are influencing students and the environment is an important in efforts to improve it. Behaviors that are linked to wanting to take more classes with the professor or more classes in a subject (i.e. affect), have been studied at length (Richmond et al., 1986; Wanzer & McCroskey, 1998; Banfield, Richmond & McCroskey, 2006). These studies show a positive correlation between instructor behaviors and student affective learning (Richmond et al.; Wanzer & McCroskey; Banfield, Richmond & McCroskey). Instructors have been measured in other research by tabulating ratings and willingness of students to enroll in more classes with the same instructor (Beatty & Zahn,

1990). An additional study was conducted on student motives to communicate in the classroom environment (Myers & Claus, 2012). These studies linking the instructor and their behaviors to student outcomes and perceptions has a gap. There is more information needed about student motives. There is little information to assist in understanding the motives students have for the perceptions they are making. Without having a deeper understanding of student motives, we may be misunderstanding the situation.

#### *Student motives*

Students are motivated by many different factors when taking college classes: money, personal growth, achievement, and prestige may be some of them. Many of the motivations have anxiety associated with them. Some of that anxiety has an obvious attachment to the course content. Some students taking public speaking courses exhibit high levels of anxiety about speaking in front of the class. Other students may have the same problem with group projects or long writing assignments. Anxiety can also be associated with other student behaviors related to socializing and issues at home. Students are constantly fretting over costs associated with tuition, fees and materials, assignments, exams, due dates, answering questions in class as well as the social aspects of student-to-student interactions. On top of the in-classroom concerns, the anxiety trickles down, making attempting to balance classwork with a job, family, and social life a constant concern.

When so many aspects of a student's college experience have high levels of anxiety associated with them, the perceptions that students have of others can't help but be influenced by those anxiety pressures. The perceptions of instructors are no different. When an instructor communicates with a student or makes changes in the class content or materials, the behaviors are going to be judged with these anxiety levels in mind. Uncertainty in the classroom has been studied using Berger & Calabrese's Uncertainty Reduction Theory [URT] involving anxiety in interpersonal relationships (Berger & Calabrese, 1975). URT is a complex theory that involves 9 axioms and 21 theorems. Berger & Calabrese also created three phases that attempt to explain the role of uncertainty in interpersonal relationships. They wrote that the phases are the entry phase, personal phase, and the exit phase. The phases are marked by the behaviors exhibited by the people involved in the relationship and the highest levels of uncertainty are exhibited during the entry phase as people meet and learn about each other. Based on URT, Gudykunst studied anxiety in group settings and intercultural contexts and another theory was developed to help understand the role of uncertainty in those relationships (Gudykunst & Nishida, 1984, 2001; Gudykunst, Young-Chul, & Nishida, 1987; Gudykunst, & Ting-Toomey 1988). Anxiety Uncertainty Management

[AUM] theory (Duronto et al., 2005), is based on research by Gudykunst and it states that, "AUM theory is based on the assumption that managing uncertainty and anxiety is necessary and sufficient for effective communication." The link between uncertainty and anxiety is explained by Gudykunst & Nishida (2001) who wrote, "Anxiety is the affective (emotional) equivalent of uncertainty" (p. 59). Lumby also noted the need to avoid or diffuse anxiety in classroom settings to enhance enjoyment and learning (Lumby, 2011). Students are making judgements about the behaviors of others in the classroom. The personal motives behind those judgements are influenced by personal anxiety levels.

H1: Students will be motivated to perceive instructor behaviors as positive when those behaviors reduce the student's level of personal anxiety.

### **Research design and methods**

The target population of this study will be college students over the age of 17, currently enrolled in college classes. The classes must be held in a classroom setting and online class enrollment alone will not qualify a student to participate. This is to ensure the respondents are working with an instructor in a face-to-face setting. Approximately twenty-five (*N*) full or part time students from all fields of study and class standings are eligible. The sample group of this study will be selected from among all qualified students willing to participate in the study. The participants' information will be kept confidential. No identifying information will be included in the recordings of the interviews or the data collected from them. Students will be presented with informed consent information and the consent form must be signed prior to participation. The signed informed consent forms will be kept separate from the audio files, data, and any notes to eliminate identifying any one student with the data that is contributed. All participation is voluntary. The participant being interviewed may choose not to answer any question at any time. Students involved with the study may stop the interview at any time and for any reason. The interviews will be conducted face-to-face in a one-on-one setting and audio of the interview will be recorded. The students will be asked to answer a set of in-depth interview questions in a semi-structured interview. The first fifteen questions will concentrate on the student's classroom experiences with instructors. The final three question will be asked to collect demographic information (Figure 1). Follow up questions may be asked to increase clarification to an answer, gain a specific example, or to encourage a more complete answer. The interviewer will take notes immediately after the interview. The notes will include information on the setting of the interview, including information about the location, time of day, lighting, and any other information that the interviewer sees as pertinent to the interview. The notes

will include information regarding non-verbal cues and other forms of communication that may not be collected by the audio recording. The notes can also be related to aspects of the interview related to, pace, volume, distractions, and other reactions to the interview by the interviewer. The answers to the questions will be coded and input into a spread sheet. The data from the interviews will be analyzed to determine if there are common motives and themes among participant responses for identifying instructor behaviors positively.

### **Preliminary suppositions and implications**

Students have anxiety associated with so many things in their college experience that it is probably an intrinsic part of the classroom experience. Students may inadvertently perceive behaviors of others through this lens more than they realize. This can influence the broader college experience for students. It can also influence the perception of the performance of instructors. Students are regularly asked to evaluate the performance of instructors in classes they complete. In addition, students report instructor performance levels on websites (e.g. [ratemyprofessor.com](http://ratemyprofessor.com)) for the consumption of others. College classes, programs and institutions are built on the reputation of the instructors and the classes they teach.

If the results of the interviews show a strong correlation between how students perceive instructor behaviors and the level of the student's personal anxiety, then strategies to mitigate anxiety in the classroom should be of great importance to instructors. Richmond, McCroskey, Plax & Kearney (1986) showed that training teachers in non-verbal immediacy skills increased students' affect for instructors, classes, and content. It is possible anxiety reduction strategies can be taught to manage anxiety and improve outcomes in a similar fashion. The ability to manage anxiety for students might become more prominent in classroom instruction, rather than being relegated to finals week stress relieving activities. Reduced levels of anxiety for students have the potential to lead to higher performance for students and instructors. These factors have the potential to lead to more productive and possibly more efficient classroom environments and outcomes that are desirable to many of the stakeholders in higher education. Universities are pushing for higher graduation rates. Students (and in some cases parents) are looking to reduce costs and borrowing as well as create a more rapid entry into the workforce. Instructors are looking for ways to be more effective and efficient. Increased productivity and efficiency may have far reaching effects on the investments that are spent by colleges, governments, students, and families to pursue education.

## Limitations

This study of anxiety in the relationship between college students and instructors does have some potential limitations based on the theory being applied to the problem. Many of the axioms and theorems of URT are associated with the concept of liking. Berger and Calabrese (1975) established that liking has a positive relationship with aspects of communication ranging from verbal communication to intimacy. Conversely, they contended that liking has a negative relationship with aspects ranging from uncertainty to information seeking. No less than seven axioms and theorems of URT are related to liking. A problem with the concept of liking in complex interpersonal relationships is that people may like each other as people, yet dislike each other in the roles that they

are assigned in a hierarchy. It is easy to envision liking an instructor, yet disliking the decisions they make in the classroom. The relationship between uncertainty and liking is particularly problematic based on how Gudykunst & Nishida (2001) explain, "Anxiety is the affective (emotional) equivalent of uncertainty" (p. 59). Axiom seven of URT asserts uncertainty will increase as liking decreases. The logical conclusion follows that as liking decreases, anxiety will increase. This has the potential to complicate the feedback from students in this study. There may be students that like different aspects of a class and its instructor, yet feel high levels of anxiety based on decisions made about aspects regarding content, due dates, and class structure (or other random factors). These types of conflicts will need to be kept in mind when analyzing the data that are collected.

## References

- Banfield, S. R., Richmond, V. P., & McCroskey, J. C. (2006). The effect of teacher misbehaviors on teacher credibility and affect for the teacher. *Communication Education, 55*(1), 63-72.
- Beatty, M., & Zahn, C. (1990). Are student ratings of communication instructors due to 'easy' grading practices?: an analysis of teacher credibility and student-reported performance levels. *Communication Education, 39*(4), 275.
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: toward a developmental theory of interpersonal communication. *Human Communication Research, 1*, 99 – 112.
- Chory, R. M., & McCroskey, J. C., (1999). The relationship between teacher management communication style and affective learning. *Communication Quarterly, 47*(1), 1-11
- Duronto, P. M., Nishida, T., & Nakayama, S. (2005). Uncertainty, anxiety, and avoidance in communication with strangers. *International Journal of Intercultural Relations, 29*(5), 549-560.
- Galanes, G. J., & Carmack, H. J. (2013). "He's really setting an example": Student contributions to the learning environment. *Communication Studies, 64*(1), 49-65.
- Gudykunst, W. B., & Nishida, T. (1984). Individual and cultural influences on uncertainty reduction. *Communication Monographs, 51*(1), 23.
- Gudykunst, W. B., & Nishida, T. (2001). Anxiety, uncertainty, and perceived effectiveness of communication across relationships and cultures. *International Journal of Intercultural Relations, 25*(1), 55-71.
- Gudykunst, W. B., & Ting-Toomey, S. (1988). Culture and affective communication. *American Behavioral Scientist, 31*(3), 384.
- Gudykunst, W. B., Young-Chul, Y., & Nishida, T. (1987). The influence of individualism-collectivism on perceptions of communication in group and outgroup relationships. *Communication Monographs, 54*(3), 295.
- Johnson, D. I. (2009). Connected classroom climate: a validity study. *Communication Research Reports, 26*(2), 146-157.
- Lumby, J. (2011). Enjoyment and learning: policy and secondary school learners' experience in England. *British Educational Research Journal, 37*(2), 247-264.
- McCroskey, J. C., Richmond, V. P., & Davis, L. M. (1986). Apprehension about communicating with supervisors: A test of a theoretical relationship between types of communication apprehension. *Western Journal Of Speech Communication: WJSC, 50*(2), 171-182.
- Moore, A., & Masterson, J. T., Christophel, D. M., Shea, K. A., (1996). College teacher immediacy and student ratings of instruction. *Communication Education, 45*(1), 29.
- Myers, S. A., & Claus, C. J. (2012). The relationship between students' motives to communicate with their instructors and classroom environment. *Communication Quarterly, 60*(3), 386-402.
- Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. *Communication Education, 35*(1), 43.
- Richmond, V. P., McCroskey, J. C., Plax, T. G., & Kearney, P. (1986). Teacher nonverbal immediacy training and student affect. *World Communication, 15*(2), 181.
- Sidelinger, R. J., & Booth-Butterfield, M. (2010). Co-constructing student involvement: an examination of teacher confirmation and student-to-student connectedness in the college classroom. *Communication Education, 59*(2), 165-184.
- Wanzer, M. B., & McCroskey, J. C. (1998). Teacher socio-communicative style as a correlate of student affect toward teacher and course. *Communication Education, 47*(1), 43.

Figure 1: Questions for the survey participant during the in-depth interview

**Please answer the following questions regarding your experience in college classes only.**

1. Please tell me about your overall feelings towards instructors in higher education?
2. What are instructor behaviors that you perceive as positive in class?
3. Why do you think you perceive the instructor behaviors from question #2 positively?
4. How often do you notice instructor behaviors that calm your anxiety about class?
5. How would your ideal instructor manage a class?
6. How would you react to a professor moving a deadline on an important project to a later date?
7. Tell me what makes you most anxious about your classes.
8. Will you give a specific example of a time when an instructor made you uncertain or anxious?
9. Did your example from question #8 become a positive or negative experience?
10. How do you feel your perception of your instructor changes with the quality and quantity of feedback they give you on assignments?
11. How do you feel towards instructors who are consistently late to class?
12. What advice would you give another student who isn't sure about seeing a professor regarding his or her grade in a class?
13. Describe a time you had trouble managing your classes and your personal life.
14. Have you had an instructor that worked to make you more comfortable or less anxious in a class?
15. Do you believe personal anxiety levels motivate your perceptions of an instructor?

**Finally, I have a few demographic questions about your college experience.**

16. How long have you been enrolled in college?
17. How do you pay for school?
18. How many classes do you usually take each semester?

Thank you.

# Repositioning criminal justice in the American settler colony

Elijah Mays\*

*B.A. Candidate, Department of Ethnic Studies, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

The American criminal justice system intersects with racial injustice, and this intersection has manifested itself most recently with high profile incidences of police brutality and a rising incarceration rate of Black individuals. It is critical to understand the history of criminal justice as it relates to racial injustice in the United States. This article examines the relationship between criminal justice and racial injustice within a frame of understanding that identifies the United States as a settler colony. I situate criminal justice and legislation that has historically promoted racial injustice within Patrick Wolfe's settler colonial theory as and Michael Omi and Howard Winant's theory of racial formation in order to understand criminal justice as it creates racial meaning that marginalizes Black people within the settler colonial population. I argue that criminal justice forms race in a manner that supports and sustains White supremacy as the system on which American settler colonialism depends. I conclude my analysis with an examination of criminality and consciousness.

*Keywords:* racial injustice, criminal justice, race, discrimination, settler colony

---

## Introduction

The American criminal justice system intersects with racial injustice, and this intersection has manifested itself most recently with high profile incidences of police brutality and a rising incarceration rate of Black individuals. It is critical to understand the history of criminal justice as it relates to racial injustice in the United States. This article examines the relationship between criminal justice and racial injustice within a frame of understanding that identifies the United States as a settler colony. I situate criminal justice and legislation that has historically promoted racial injustice within Patrick Wolfe's settler colonial theory as and Michael Omi and Howard Winant's theory of racial formation in order to understand criminal justice as it creates racial meaning that marginalizes Black people within the settler colonial population. I argue that criminal justice forms race in a manner that supports and sustains White supremacy as the system on which American settler colonialism depends. I conclude my analysis with an examination of criminality and consciousness.

America has found itself with a problem that is has no interest in solving. This deep-seated, congenital infection of the American paradigm has manifested itself time and time again through the history of the Land of the Free. Such a problem cannot continue to exist without bearing witness to the eventual decay of America, and without divesting in the violence and manipulation that have been cemented into American civilization, such decay is inevitable. America

has impressed the most heinous of crimes upon the most vulnerable people for centuries, and has seen to it that the effects of such crimes will not only be sustained, but justified. Refusal to recognize the realities of violent displacement and dispossession is a reflex to the fear of one's own dispossession, which poses a threat to the politic of status that American civilization depends upon. The problem of Settler Coloniality has become invisible to the Settler, and is the rotting foundation, the infection of the body of American civilization. On trial in this article is White supremacy, the structure that functions as the nervous system of the American Settler colony. This indictment of White Supremacy will interrogate the American brand of criminal justice, a modern means of preservation of White Settler status.

In order to understand criminal justice in relation to Settler Colonialism, a connection must be established between the criminal justice system, how race is made, and how race operates to sustain White supremacy. To do this, we must examine the criminal justice system as it relates to racial formation and contributes to the making of race. This relationship requires an historical understanding of the positionality of Black people throughout American history, and how racist institutions became mass incarceration, a defining element of American criminal justice. In this history we can see the mechanisms of White supremacy and how such mechanisms function to create what the American imaginary sustains as Blackness via the theory of Racial Formation.

---

\* Corresponding author. Email: [emays@csustan.edu](mailto:emays@csustan.edu)

Once a connection has been established between criminal justice and racial formation, we can further interrogate how criminal justice operates to sustain White supremacy. To be an operative of White supremacy, the criminal justice system must be able to use racial meanings in order to affect the access to citizenship that one has and protect the investment that America has made into Whiteness. By identifying how criminal justice operates, we can properly situate it within the Settler Colonial context, and thus problematize the criminal justice system as a means of maintaining American Settler Colonialism.

### **Repositioning Black American history and carcerality in a settler colonial context**

Mass incarceration exists in a historical context that dates back to American chattel enslavement of African people. This marks the first of several formations of dispossession that Black people have faced in the centuries since that time. In *The New Jim Crow*, Michelle Alexander defines this history as one of racial caste, which, while accurate, relies on an isolated observation of race. Recognizing the dynamics of race as it intersects with other formations in the history of Black people in which we have been positioned is important. Taking Alexander's racial caste perspective relies on preserving Whiteness as an uninterrogated guarantee of Americanism, where, in America, Whiteness is normative, rather than a constructed racial identity that exists within a community of other racial identities.

Once this is recognized we may observe that the racial caste system that is taking place is in fact a product of the colonial relationship that White people share with everyone within the American sphere of influence. Population economy is critical to Settler Colonial theory, introduced to the Settler Colonial context by Veracini, it is an economic approach to relationality in a population that utilizes different values in order to measure position. It is important to understand that within this population economy exist all peoples in the American Settler colony, and each moves within fluid states of righteousness and degradation as well as indigeneity and exogeneity.<sup>1</sup> A rudimentary understanding of population economy as a formation of the Settler Colonial body politic frames White settlers' motivations to keep Black people in a constant state of abject otherness. Settler Colonial theory allows for an alternative perspective through which to view the institution of slavery and its later manifestations.

Chattel slavery is historically juxtaposed to the dispossession of Indigenous American peoples from their lands in order to settle America, which comes as no coincidence when observing the formation of the

population economy that Settlers hoped to create. What is perceived as a struggle for land and a display of military power is actually the investment in Whiteness as a metric for Americanness in this newly founded nation. The Settler relies on the suppression and othering of the truly indigenous in order to fabricate a status of indigeneity of their own. By shedding their identity with the European metropole and creating a society in which they hold an invented birthright to the land they have stolen from the indigenous Other and violently repatriating an exogenous Other, the Settler has created a nation in their own image. Repositioning chattel slavery in context with the dispossession of Indigenous Americans is critical in understanding consequent formations of enslavement and incarceration in the Black American history.

A common thread can be identified in the trials and tribulations that Black Americans faced from chattel slavery through the slavery of mass incarceration. This thread is often identified simply as a newly devised method of oppression for Black people, however Settler Colonial theory offers an alternative perspective. Such trials and tribulations are new formations of the same racist structure that upholds Settler Colonialism: White supremacy.

Slavery served a dual purpose: to provide coerced labor to the growing colonies, and to degrade enslaved Africans and place White people into a dominant space, above Black and Native peoples. The Thirteenth Amendment declared slavery to be entirely unconstitutional except as punishment for a crime, effectively abolishing the institution that played such a key role in maintaining American White supremacy; however, the caveat in the Constitution's language provided the loophole necessary to keep Black people indentured to Whites. In order to exploit this, Southern states imposed Black Codes as a means to criminalize free Blacks. The Codes included vagrancy laws that criminalized any Black men over the age of eighteen without written proof of employment.<sup>2</sup> Immediately following the abolition of slavery, newly freed Black people in the South found themselves subject to forced labor as a result of incarceration, rebuilding the South in the reconstruction era. Early prison labor created a peonage system of indentured servitude that directly reflected slavery, effectively placing formerly enslaved Black people back into the same position as before. Ultimately the Black Codes were repealed, and the following Civil Rights legislation gave rise to the advancement of the African American population; gaining political power and access to education posed a threat to White supremacy. In order to once again solidify White supremacy and separate Black and White peoples, Jim Crow laws were enacted.

Jim Crow segregation represents the Settler's investment in its structure, maintaining a purity of the

<sup>1</sup> For a visual depiction of population economy, see Veracini chapter 1, Figure 1.1

<sup>2</sup> Black Codes and Reconstruction are further elaborated on Alexander 28-29

Settler identity as the dominant racial group. Integration and interracial procreation posed the threat of the development of a hybrid form of population. The threat of hybridity provides a new perspective in which to understand American histories dating back to the relocation of Indigenous Americans, as well as Jim Crow segregation. “Hybrid forms disturb the triangular system of relationships inherent in the Settler Colonial situation, and ultimately reproduce a dual system where two constitutive categories are mixed without being subsumed.”<sup>3</sup> The violence situated around the time of legislative segregation, through a Settler Colonial framework, can be understood as the result of a dying structure of White supremacy, taking place during a time in which America is also fighting in a war defined by Hitler’s campaign of anti-Semitic, colonial White supremacy. Jim Crow sees its demise starting with the integration of public schools, beginning with *Brown v. The Board of Education*, and the rise of a Civil Rights movement that held a mirror to America. The American response to the Civil Rights and Black Power was to criminalize Blackness once again.

This Settler Colonial reflex catalyzes formation of mass incarceration, giving rise to new legislation and practice that emerges under the Nixon administration. The Black Power movement posed a threat to Whiteness, and to mitigate such threat, “Law and Order” rhetoric that emerged in the 1950s saw a dramatic rise in popularity as a means to criminalize Black protest. This rhetoric gave way for what’s known as the Southern Strategy: a campaign of politically correct language used by the Republican party in order to gain the Southern anti-Black Democrat vote. The Southern strategy, along with media sensationalism of crime in Black communities and Moynihan’s report on a Black “culture of poverty,” empowered a social production of Black people as criminal, negligent, and addicted to drugs. The Nixon administration saw to the racialization of Black people as heroin addicts, and pushed an agenda to heavily criminalize drug use. The Regan administration not only enacted tax breaks for the wealthy that economically devastated inner city communities, but demonized crack cocaine and proceeded to racialize Black people to become almost synonymous with crack. Regan’s administration also began a de facto War on Drugs, which was literally and rhetorically waged in primarily Black communities premised on the notion that drug addiction was, as Nixon referred to it, “Public Enemy Number One.” The drug war gave rise to incarceration unlike any that history had previously seen, and unapologetically racialized Black people as the perpetrators, rather than victims, of the drug epidemic.

Racializing rhetoric was harnessed by the Republican party, and forced a political platform of Law and Order which allowed Republicans to dominate elections. Following Bush’s victory on the Law and Order campaign,

a shift occurred in the Democratic party that cemented the trajectory of mass incarceration as it has become today. Bill Clinton, in order to win his first term, adopted a tough on crime platform that introduced mandatory sentencing laws, three strikes legislation, and superpredator rhetoric into the American consciousness. This platform proved successful not only with White America, but had great appeal to Black Americans who were convinced that Clinton’s tough-on-crime attitude would effectively reduce crime and rebuild Black communities. What was not as apparent was the nature of tough-on-crime as an investment in the removal of Black people from American society as a means of sustaining White supremacy. Clinton’s appeal to Black communities was, in reality, an investment in the structure of Whiteness that his Republican predecessors made before him.

Today America’s incarcerated population makes up roughly twenty-five percent of the world’s overall incarcerated population despite the American population only making up approximately five percent of the world’s population. This is evidentiary of a civilization in decline. Because incarceration and criminalization are key operatives in the dispossession of citizenship in the United States, we see a definite trend; when Black women are twice as likely to be imprisoned as White women and Black men are nearly six times as likely as White men.<sup>4</sup> America has made clear its investment in Whiteness, using mass incarceration as its new mode of colonization of transferring Black people back into the abject Other position that enslaved Africans once occupied.

### **Criminal justice as a racial project**

Understanding how race is made by the criminal justice system requires an understanding of the theory of Racial Formation, introduced by Michael Omi and Howard Winant as a navigation of race as a “master category” that operates in American society to discern difference. The necessity of identifying the process of race making is crucial in identifying race as an operative of White supremacy. Interrogating American history proves effective in extracting social productions and racial implications from institutions and legislation that may appear to be racially neutral, and recognizing these implications is key in understanding how race operates. Racial Formation Theory operates on the assertion that race making is a reciprocal process involving racial meanings, racialization, and racial projects.

Racial meaning is the product of corporeal observations of difference between people in conjunction with social observations and generalizations about different people. These observations are applied to people, and meaning is cemented through the process of racialization,

<sup>3</sup> Veracini, *Kindle Locations* 627-628

<sup>4</sup> The Sentencing Project fact sheet on Trends in US Corrections (2015)



the catalyzing element of racial formation, defined by Omi and Winant as “the extension of racial meaning to a previously unclassified relationship, social practice, or group.”<sup>5</sup> For example, racial meaning may be given to physical features such as brown skin, wide flat noses, and epicanthic folds, and someone with such features may be racialized as Southeast Asian, because that is the racial meaning associated with those physical characteristics.

Conversely, racial meaning is created by socially constructed generalizations of people, such as citizenship, criminality, or sexual morality. These types of racial meaning are attributed to people through racialization in order to construct general assumptions about one who belongs to a racial group. For example, Hispanic people in the United States are often racialized as Mexican because of their appearance, and as such, are racialized as immigrants, undocumented or otherwise, because of the racial meanings assigned to Hispanic and Latino people.

Racialization exists as a reciprocal concept between racial meaning and racial project. Racial projects are “simultaneously an interpretation, representation, and explanation of racial identities and meanings, and an effort to organize and distribute resources (economic, political, cultural) along particular racial lines.”<sup>6</sup> The work is done both ideologically and in praxis to create attributes that are assigned to people via racialization and then proceeds to act upon those constructed characteristics in order to sustain them. Black women are very often on the receiving end of the welfare racial project’s interpretation of Black women as Welfare Queens, which combines the racial meaning of welfare abuse that is ascribed to Black women with the rhetoric condemning Black women for abusing welfare benefits. The ideological work that racial projects do has real world implications that are woven into American society, and largely uphold White supremacy.

As demonstrated above, Black people have been subject to enduring formations of dehumanization and racialization as a means to justify subjugation that has been instrumental to the structure of White supremacy that America was founded on. Omi and Winant provide a lens through which we can examine the production of Blackness in America dating all the way back to slavery, and from that, we can understand how Blackness was ideologically positioned within the Settler Colonial body politic. Race operates to justify and rationalize White supremacy premised on a constructed difference, and this constructed difference is a result of religious, (pseudo)scientific theory, and politicization that grants Whites access to humanity that the Other is restricted from.

Racial consciousness stems from a religious understanding of Europe as the metropole, where European people were the standard and the Other (Jews and Muslims) existed outside the same kind of humanity and morality that Europeans occupied. This translated to a racial

understanding of Whiteness compared to the non-White, non-European Other when Europe colonized African and Indigenous American people. A scientific understanding of race emerges with studies of cranial capacity, genetic difference, and a belief that the Other was unable to understand or think in either the same way or to the same degree as the European. The science of race gave rise to an understanding of colonized indigenous people as an inferior species, and rationalized a paternalistic generalization of the Other as savage and unsophisticated, which inspired American racial politics that endured the twentieth century and still find recognition to this day.

In the twentieth century, racial politics around Blackness very greatly relied on the constructed belief of Black men as violent, hypersexual, and unintelligent, while the Black woman was either naturally subservient and desexualized or dangerously cunning and sexually promiscuous. These racial meanings paved the way for the political racialization of Black people as a general threat to the welfare of White people, justifying enslavement, lynching, segregation, and mass criminalization, followed by mass incarceration. Racial meaning was translated into the racial politics that were detailed in the previous section through institutions and practices that allowed for the mass brutalization and containment of Black people from slavery until now. American criminal justice is a long enduring racial project that functions to continually manufacture racial meanings and enforce legislation and practice that sustains such racial meanings.

Criminal justice is a key racial project that is sustained by, and sustains the mythology of Black inferiority and savagery that America has relied on. Slavery was justified by paternalistic interpretations of Blackness as naïve, unable to function without the structure that slavery provided, and dangerous if not contained, while Blacks who escaped and hoped for peaceful existence were demonized because of these mythologies, and either captured and returned to slavery or isolated to Maroon communities. Following emancipation, a rise in imprisonment and fatal violence toward free Black people occurred because of the same interpretations of Blackness. In the American imaginary, Black men posed a threat to White women, which is answered by imprisonment under Black codes and lynchings for offenses as innocuous as vagrancy or eye contact with a White woman. Through Jim Crow laws, Civil Rights protests, and Black Power movements, we see criminality taking a more formal shape as the racial meaning applied to Black people. The same myths are present; diminished moral capacity, hypersexuality, inclination to violence and criminal activity all played key roles in the institutions and practices that led to the War on Drugs and Tough on Crime legislation that only further produce the racial meanings that they resulted from.

<sup>5</sup> Omi and Winant (111)

<sup>6</sup> Omi and Winant (125)

The power that criminal justice has to racialize Black people comes from its power to determine one's access to rights typically possessed by United States citizens. In conjunction with the social constructions that mass incarceration and criminal justice produce about Blackness, felony disenfranchisement greatly hinders one's access to rights and resources that are granted to United States citizens. Felony disenfranchisement effectively removes those convicted from citizenship. Because of the gross overrepresentation of Black people either incarcerated,<sup>7</sup> disenfranchised due to felony conviction,<sup>8</sup> or under adult correctional supervision (parole, probation,)<sup>9</sup> the criminal justice system is designed to remove Black people from the status of citizenship, and generate a racial meaning that is not only criminal, but non-citizen, or undeserving of the rights of citizenship. This removal of citizenship is instrumental in reshaping racial meaning, and resituating people within a population economy. Understanding this is critical to making a connection between how the criminal justice system makes race, and how the criminal justice system sustains White supremacy. As a racial project, criminal justice functions to do the ideological and practical work that produces and sustains the racialized understandings of Blackness, and because of this, criminal justice has become a crucial mechanism of Settler Coloniality in America. The population economy in a Settler colony, as discussed earlier, depends on the compartmentalization of Settler as separate from the Other. By generating cultural understanding of Black people as less than human, and simultaneously as non-citizen members of society, Black people are moved back into the abject Other position, incarcerated, brutalized, and dehumanized.

### **White supremacy as settler colonial structure**

White supremacy's importance in American Settler Colonialism can best be described through the population economy model, which places the White Settler in a position that supposes an inalienable right to the land that's been settled and citizen status above the indigenous population. In the population economy, as described by Veracini, the Settler makes a claim to power above all others in the body politic, and makes a claim to indigeneity that erases their exogenous roots, while also claiming Europeaness to distance themselves from the indigenous Other. The ideological work that the Settler does to place themselves in a simultaneously indigenous and exogenous position of righteousness functions as a means in which to

establish themselves as the rightful owners of a land that that they stole from the indigenous Other.

Settler Colonialism depends on the maintenance of this structure in which the indigenous population is disenfranchised, the exogenous population is carefully evaluated for their ability to conform to Whiteness, and enslaved Africans are completely dispossessed of humanity, positioned outside of the indigenous/exogenous spectrum, entirely degraded. Otherness must be interrogated as a function of White supremacy in order to fully connect mechanisms that racialize the people that have been Othered in relation to the American Settler colony, and to do this by examining population economy demonstrates how such mechanisms, and White supremacy, function in a Settler economy.

Whiteness is situated at the top of the racial hierarchy of the Settler population, so to theorize America's racial history through the population economy allows us to better understand how Whiteness functions, and how racialization functions within a Settler Colony. This is reflective of Michelle Alexander's interrogation of American society as a system of racial caste, though population economy is framed in a manner that better allows us to observe the nuance in positionality between marginalized communities. This distinction is critical to understanding how people can be racialized in order to produce different outcomes, for example, Indigenous Americans can be racialized as backwards and savage by tradition, so White supremacy offers assimilation as a solution, but criminally inclined Blacks must be addressed with a carceral solution.

Whiteness functions as a given, in an uninterrogated position within the White supremacist structure. The Settler inhabits a position, as noted before, that is simultaneously indigenous, exogenous, and righteous, and is a fixed position for the Settler. In Veracini's model, the "Settler Self" is defined entirely as uplifted or righteous, and simultaneously becoming indigenous (more indigenous than the colonized indigenous people) and remaining European (or White in racial status, rather than national allegiance.) This positionality is maintained by way of institutions that reaffirm White Settlers as militarily powerful, conceptually American, and economically secure, while inflicting institutionalized violence upon the Other.

Within the Settler Colonial population economy, Indigenous Americans exist in an othered position below White Settlers. The indigenous Other has a position in history that differs greatly from Black people because of the passage granted to the indigenous Other into the Settler identity. This passage is not a gracious gesture on the part of the Settler, rather, it's another mode of transfer that

<sup>7</sup> 35.8% of incarcerated people in 2014 were Black (The Sentencing Project) despite Black people only representing 13.3% of the total US population a year later (United States Census Bureau)

<sup>8</sup> 7.66% of African Americans, compared to 2.5% of White people in 2010 (Uggen and Shannon)

<sup>9</sup> 30% of probationers in 2013 were Black, 38% of parolees (Bureau of Justice Statistics, 2013)

benefits Whiteness by assimilating indigenous peoples who wish to transgress the boundaries of indigeneity. This works to assist the Settler to further secure their own indigeneity. Transfer by assimilation has been imposed upon the indigenous Other in the forms of campaigns and boarding schools designed to purge any characteristics that possess racial meaning that indicates difference from the Settler in order to make them indistinguishable from a White Settler. Assimilation is an attempt to convince the colonized that Whiteness is humanity in order to maintain colonial control.

Exogeneity is a complex concept in the Settler Colonial population economy. One who enters the Settler colony from outside is subject to the scrutiny of the Settler, and assigned status based on the potential to be assimilated. Desirability is determined by the exogenous subject's proximity to Whiteness, so an Irish immigrant, for example, may have suffered prejudice in the early twentieth century, but because of their European origin they have access to Whiteness, and thus, Irish has become synonymous with Whiteness. In contrast, an immigrant from Central America does not possess features that allow them to be racialized as White and are viewed to be less desirable in the eyes of the Settler, unless they are able to shed that which racializes them as an Other.

Enslaved Africans and Black people today exist in a space unoccupied by any other group in the Settler population economy. The abject Other is one who is dispossessed entirely, left with nothing from their origins and subjected to degradation with no reprieve. Understanding the positionality of enslaved Africans and their African American descendants requires the understanding that, by design, Black people have no claim to American indigeneity, but cannot claim exogeneity in the same fashion as an expatriate. The Black American identity is one constructed by the colonial formation, and is subject to the whim of the colonial structure. Because of this, Blackness is malleable, and can be distorted to fit the narrative most suitable to the agenda of the Settler. White supremacy has depended on the maintenance of the dehumanization of non-White peoples in the Settler body politic, and to do so requires institutions in which to create understandings of one's race in order to problematize it followed by a sweeping solution that effectively removes the problematized, dehumanized peoples from American civilization. This can be seen in the dehumanization of enslaved Africans, offering slavery as a solution to the "problem" of the servile, uncivilized African by providing structure and work in order to protect White America from the otherwise inevitable chaos that would ensue if Blacks were allowed freedom in the States. Blackness is racialized in a manner that creates space in which the colonial structure can devise mechanisms with which to control the Other. From the incarceration of slavery to the slavery of incarceration, a common thread is identified: each institution that has existed to control Black people exists

because of a reinvestment into White supremacy, developing new ways in which to reaffirm the colonial hegemony of the Settler by once again relocating undesirables from citizen status.

### **Situating criminal justice within the settler colonial structure**

Criminality is socially constructed, devised by those in power as a means of social moderation. In a truly democratic civilization, criminality functions to benefit society by identifying those who do not act in accordance with the good of the society; however, considering the nature of the socially constructed, its function becomes dangerous when functioning within a population economy such as America's. American Settler Colonialism depends on White supremacy remaining on top of the racial hierarchy that the settler created within their colony, and in order to do so, institutions were set in place to assure that anything resembling a challenge to Whiteness will be neutralized. The institution of criminal justice has been developed over time to advance the agenda of the Settler, and maintain the colonial structure of White supremacy.

In his chapter on consciousness, Veracini identifies the need for the Settler to maintain a constructed image of the colony, defined by collective work ethic and settler moral traditions. This need intersects with a need to control the growing population, organizing social capital within the population economy. Criminality functions to maintain the ideals of the Settler, who is attempting to create distance between their past of foundational violence and their present, characterized by their ideal depiction of the Settler Colony. Focusing on establishing "Law and Order" in the twentieth century contradicts the violence on which America was founded. This position is by no means a disavowal of the intent to achieve peace, rather, it is a disavowal of the attempt to erase a cycle of violence that the Settler Colony depends on.

In accordance with the "Law and Order" platform adopted by twentieth century politicians, a strategy was designed by which to criminalize Blackness, as it was perceived as a threat to the White Settler. Nixon's administration campaigned to associate the Black population with heroine, which was then heavily criminalized and demonized by War on Drugs legislation and rhetoric. This was followed by further demonization and criminalization during the Regan administration and the introduction to crack cocaine into inner city communities. Criminality was ascribed to Black people by means of this massive cultural focus on drug use as a criminal matter, rather than a health issue. The decision to approach epidemic drug use with penalization and incarceration serves to remove those who are primarily targeted in this "war" from the general population. Incarceration rates increased dramatically, and the rate of

incarcerated Black people has reached a level nearly six times that of White men, and three times that of the American male population.

Constructing the association between Black people and drug use binds Black people at large to the criminal construct, effectively removing us from the image of settler colonial America. The conceptual transfer of criminality,

coupled with the physical removal from the general populous by incarceration, relocates Black people back into abject otherness. The socially constructed functions to allow the criminal justice system to regulate who has access to the benefits of citizenship and participation in the population, as well as the organization of social capital within the population economy.

## References

Alexander, Michelle. *The New Jim Crow*. Foreword by Cornel West, Revised Edition, The New Press, 2012, New York.

Herberman, Erinn J. and Thomas P. Bonczar. "Probation and Parole in the United States, 2013." Bureau of Justice Statistics, 2015.

"Trends in U.S. Corrections." *Research and Advocacy for Reform*, 2015.

Uggen, Cristopher, et al. "State-Level Estimates of Felon Disenfranchisement in the United States, 2010." *Research and Advocacy for Reform*, The Sentencing Project, 2012.

United States Census Bureau. "UNITED STATES QuickFacts from the US Census Bureau." census.gov, <https://www.census.gov/quickfacts/table/RHI125215/00>

# Exploring the influence of drag in the Central Valley LGBTQ community

Stephanie O. Landeros\*

B.A. Candidate, Department of Sociology, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

Drag is the art of female and male impersonation. According to Berkowitz and Belgrave (2010), its culture within the LGBTQ+ community has helped loosen the restrictions of gender across the board, not only in the context of drag performance. Transgender individuals have been able to use drag as a means of survival within the context of performance. Moreover, this preliminary research suggests that heteronormative society restricts gender performance by enforcing the societal gender construction of men and women. Furthermore, the research doesn't focus on why drag performers are the most visible part of the LGBTQ+ culture, i.e. Logo's television show "RuPaul's Drag Race" (Goldmark, 2015). For this exploratory study, I expand on the limited research done on drag communities in rural areas such as the Central Valley of California. Through observational and in-depth interview data I hope to understand how participants experience, cope with and challenge their social marginality within the larger heteronormative community through drag performance.

*Keywords:* drag, LGBTQ+, California Central Valley, transgender

---

## Introduction

When looking at the LGBTQ community some of the most public faces are those of drag performers. But what is their connection and role in the community? Drag is where individuals dress up as a different gender, primarily for short periods of time, which differentiates the practice from people who are trans and change their gender socially and/or legally. Drag is nothing new to the LGBTQ community, although acceptance of it outside the community has not always been obvious or direct. Men have always been looked at as strong and women have been seen as the "weaker sex." The topic of drag is taboo because wanting to take on a role in the stronger group is okay, but wanting to be part of the weaker group is not. The purpose of this project is to not only contribute to the existing research, but also to introduce a topic that is seen by general society as taboo. This project helps destigmatize different types of gender performance through the help of drag.

## Literature review

When looking at the impact of drag within the LGBTQ community, researchers often have to look at the perceptions, origins, and ways in which communities like these thrive. Recently, drag queens have seen a broad rise in popularity through *RuPaul's Drag Race*, a competition

reality show where drag queens compete for the crown and "title of America's next Drag Superstar" (Moore, 2013). RuPaul Charles is easily one of the most famous drag queens with record charting music and popular television shows in the 1990s. This has continued through to his most recent award-winning show, *RuPaul's Drag Race*, since its inception in 2009 (Moore, 2013). Drag is an important way to investigate gender within a community. It is directly represented by the RuPaul phrase, "You're born naked and the rest is drag," an expression that Moore (2013) argues reflects the show's "de-naturalized gender performances" allowing drag to be represented as "fully realized threads of identity which are woven into a perceived whole." That is to say, drag is an important way to see that gender is not inherently natural, but socially constructed through interaction and performance, allowing for an easier route that people can travel to come to understand how their own gendered expressions are malleable.

These gender constructions reaffirm the importance of drag because it is through these moments that we can see how important it is to realize that gender is something changing rather than static (Schacht, 2003). They function to aid audiences in seeing the ways gender comes to exist, as well as how easy it is to cross the boundaries of gendered expectations of behavior. While drag is not the only way to do this, this does not negate that it still has influence. Drag, as Schacht (2003) notes, is what helps centralize that

---

\* Corresponding author. Email: [slanderos1@csustan.edu](mailto:slanderos1@csustan.edu)

playing with gender is an important component of the LGBTQ community through its history. This makes both intuitive and empirical sense in that individuals in the LGBTQ community are regularly derided as doing gender “wrong” by not participating in normative heterosexuality, so intracommunity approaches are especially important.

But what is the culture of drag and its impact in our LGBTQ community both nationally and locally? The current popularity of *RuPaul’s Drag Race* is a logical continuation of the earlier influences of drag in society. In 1969, the Stonewall Riots were initiated, invigorated, led, and supported by drag queens. This fact, though, is regularly overlooked. As an example, an article in *The Harvard Civil Rights-Civil Liberties Law Review* (1994) discusses how the history of the Stonewall Riots, a key moment in the LGBTQ history, is one where the central role of drag queens and trans people is often obscured, primarily to cater to a more normative market.

Because of this, there is rampant obscuring of how drag queens led and maintained the community’s protest over multiple days and used that energy to build coalitions for future activism.

This example is emblematic of the ways in which drag queens are public faces but their roles and importance have been pushed down and hidden, thus creating an important issue to investigate because of the ways drag queens are continuing participants in their communities while supporting broader social movements. These ties to community help give a solid grounding not only for social events, but also fundraisers and philanthropy. A prime example of this is the Sisters of Perpetual Indulgence, a national group of drag queens in various cities who raise money for various causes, non-profits, and events that aid their communities and the individuals within them. Studies also emphasize the importance of drag performers in clubs (Rupp and Taylor, 2003). As Rupp and Taylor (2003) note, drag queens operate within their communities as key members, while also being an important avenue for the exploration of gender and presentation, not only for the local LGBTQ community members, but also for cisgender heterosexual audience members.

Building from these vantage points (historical and contemporary, LGBTQ and heterosexual community), the current project aims to look at the local context of drag queens in California’s Central Valley. More specifically, it aims to understand, through the experiences of drag performers in this region, how they see themselves within their community while building up an understanding of how they took on that role and what it means to do drag. By focusing on these factors, the project addresses the above

points in multiple ways. It looks at the historical context and the broader implications of why drag queens do what they do, all while addressing if they think drag queens are centrally important in the community, and if so, why? The goal of the project is to understand the roles drag plays within the larger LGBTQ community through the specific experiences of drag queens of the Central Valley.

## Methods

The data collection method used in this project will be purposive sampling. Purposive sampling is a form of convenience sampling wherein respondents have been identified because they have specific knowledge of the topic or phenomena on hand. This project is focused on the role of drag in the LGBTQ community. This means I will look at the publically named drag queens at events and at clubs in the Central Valley (with a focus on the range from Stockton to Fresno) to construct my sample. Contacting publically noted queens offers two key strengths to this project. Firstly, these drag queens have a larger knowledge of their roles in the community. Secondly, publically named queens are known and recognized members of society, thus ensuring sure that the individuals I contact are people who are known and identified as drag performers, thereby reducing concern regarding the fact that not everyone within the LGBTQ community is out.

Approximately 12-14 drag queens will be contacted through their publicly listed contact information with the goal for the final sample to be interviews with approximately 10 drag queens. Because they are publicly known with publically available contact information, this means that all contact is direct, increasing confidentiality. Participants’ age range will be 18-40 and they will be both male and female. Respondents will be supplied with a study information sheet and will be asked to sign an informed consent sheet. Semi-structured interviews will be conducted along the points mentioned earlier.

Interviews will primarily be conducted at their main performance venue, although participants will be able to choose the location of the interview depending on their schedule and preference. Because survey questions are personal and reference potentially sensitive topics to gender identity and sexuality, participants may feel uncomfortable or embarrassed answering them. Contact information for the student researcher and the faculty advisor will be provided to performers if they wish to receive further information or discontinue participation.

## References

- Harvard Civil Rights-Civil Liberties Law Review, (1994). 29(2), 278-282. Introduction: Stonewall at 25.
- Moore, R. (2013). Everything else is drag: Linguistic drag and gender parody on RuPaul’s drag race. *Journal of Research in Gender Studies*, 3(2), 15-26.
- Rupp, Leila J., and Verta A. Taylor. *Drag Queens at the 801 Cabaret*. Chicago: U of Chicago, 2015. Print
- Schacht, Steven P. PhD (2003) Lesbian Drag Kings and the Feminine Embodiment of the Masculine, *Journal of Homosexuality*, 43:3-4, 75-98, DOI: 10.1300/J082v43n03\_06

# To be a woman: Gender and the death of the Mirabal Sisters

Jynessa Mendoza\*

B.A. Candidate, Department of History, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 17 April, 2017; accepted 19 July 2017

---

## Abstract

Traditional gender roles prove to be hard barriers to break. They cripple the feminine voice, and when used properly they promote a destruction of that very voice. However, there are stories of women breaking through the barrier that gender creates, pushing their voices to be heard for the progression of human rights. It is in the case of the Mirabal sisters that we see this demonstrated. The year was 1960 and it was well into the regime of Rafael Trujillo in the Dominican Republic. Hundreds of people died and many were in prison for a cause that the Dominican people struggled with daily. A group of dissatisfied Dominican citizens worked cohesively to end the reign of Trujillo. The Fourteenth of June Movement were amid their plans for a revolution. At the face of this movement were the Mirabal Sisters, who fought alongside their husbands and comrades to overthrow Rafael Trujillo. However, before they could make legitimate change, the three sisters were murdered by a treacherous act. Although there is extensive research regarding the Trujillo Regime in the Dominican Republic, most historical interpretations of the Mirabal sister's murder focuses on how the deaths influenced the assassination of the dictator. Many scholars see the sisters as the flame that sparked the assassination of Trujillo, which is the predominant analysis of the murder. Nonetheless, this research is aimed at broadening the perspective towards the murder of the sisters; looking at cause rather than effect. In doing this, the research suggests that the role of gender was a major contributor to the motivation behind the murders. The article will explore the relationship that Trujillo had with women and how these relationships reflect his thoughts toward females. By understanding his views of women based on how he treated them, one can comprehend why the Mirabal sisters concerned him so greatly. Moreover, the role that the Mirabal sisters had in the rebellion contradicted traditional female roles which further disturbed the machismo that flowed through the dictator's blood. By researching the motive of the murders rather than the effects, the research hopes to expand the historical analysis of the Mirabal sisters' murder.

*Keywords:* Mirabal sisters, Dominican Republic, Rafael Trujillo, Fourteenth of June Movement, gender

---

## Introduction

Although there is extensive research regarding the Trujillo Regime in the Dominican Republic, most historical interpretations of the Mirabal sister's murder focuses on how the deaths influenced the assassination of the dictator Rafael Trujillo. Many scholars see the sisters as the flame that sparked the assassination of Trujillo. For instance, in the book *Trujillo: The Death of the Dictator* author Bernard Diederich states, "more than Trujillo's fight with the Church or the United States, or the fact that he was being isolated by the world as a political leper, the Mirabal's murder tempered the resolution of the conspirators plotting his end."<sup>1</sup> In other words, even though there was trouble with the church and Trujillo that caused public outcry and much of the world was already separating themselves from him is oppressions, it was the Mirabal sister's murders that encouraged an urgency in ridding the country of the man. Though this analysis holds ground in the case of the Mirabal sisters, it does little to look at the motives behind the murder. This research is intended to look at the murder

in a different perspective, focusing more on why Trujillo targeted the Mirabal sisters and his motives behind it.

The research is aimed at broadening the perspective towards the murder of the sisters. In doing this, the research suggests that the role of gender was a major contributor to the motivation behind the murders. Because Trujillo displayed characteristics of machismo, a masculine demeanor (something that will be considered more extensively in the article), the idea that women were such important figures in a resistance concerned Trujillo extensively. The article will explore the relationship that Trujillo had with women and how these relationships reflect his thoughts toward females. By understanding his views of women based on how he treated them, one can comprehend why the Mirabal sisters concerned him. Furthermore, the role that the Mirabal sisters had in the rebellion contradicted traditional female roles, and therefore caused much distain to the dictator. By researching the motive of the murders rather than the

---

\* Corresponding author. Email: [jmendoza20@csustan.edu](mailto:jmendoza20@csustan.edu)

<sup>1</sup> Bernard Diederich, *Trujillo: The Death of the Goat*, (Boston: Little Brown, 1978), pg. 72.

effects, the researcher hopes to broaden the analysis of the Mirabal sisters murder case.

Throughout history it is seldom that the acts of female revolutionaries are recognized. A common practice in Latin American culture is to subject women to living a life of caring for the home. The only value a woman has is the family she raises and the house she keeps.<sup>2</sup> A repercussion of this is that many women struggle to retain a sense of liberty in their country. The truth is that a woman is more valuable than by work she does in the household. There were many Latin American women who fought vigorously for the civil rights that tyrants tried to take from their people. They saw a struggle and participated in movements to help their country gain a better future. By freely speaking about the injustices of their countries, these women contradicted the Latin American women model.

The Mirabal sisters, of the Dominican Republic, were activists who saw the injustice that was overtaking their beloved country and fought to do something about it. Las Mariposas (The Butterflies), which was the sisters' code name, worked alongside their husbands and confidants with the notion that the Dominican Republic was in dire need of change. In the end, the sisters paid with their lives. Minerva, Maria Teresa, and Patria did not risk their lives for glory, but for the desire to live in a country that did not suppress its people. However, when women decide to stand up for something that they believe in, people tend to consider them out of place. In the case of the Mirabal sisters, the fact that they were women only hastened their deaths.

### Rafael Trujillo's rise to the Presidency

Rafael Trujillo rose to presidency through his acclaimed work in the armed forces. He was not born into a home of the elite; therefore, he was forced to work for the high regard in which he was held. In *The Dominican Crisis*, author Piero Gleijeses suggests that it was the U.S occupation of the Dominican Republic that allowed him to rise to his place in society.<sup>3</sup> Major Thomas E. Watson, who was part of the United States Marine Corps and a member of the Second Provisional Brigade in the Dominican Republic, described him in a favorable manner. It was his American superiors who considered him one of the best officers and would provide him with positive references. He quickly moved up the ranks in his military career, and within seven years he was general of the National Army.

<sup>2</sup> Nancy Robinson, "Women's Political Participation in the Dominican Republic: The Case of the Mirabal Sisters," *Caribbean Quarterly* 52, no. 2/3, Unraveling Gender, Development and Civil Society in the Caribbean (June 01, 2006): 172-83. Accessed August 23, 2016, <http://www.jstor.org.libproxy.csustan.edu/stable/10.2307/40654568?ref=search-gateway:5874a0f8ac4966e86dfb4fee1efc4a16>, 3.

<sup>3</sup> Piero Gleijeses, *The Dominican Crisis: The 1965 Constitutionalist Revolt and American Intervention*, (Baltimore: Johns Hopkins University Press, 1978), 21.

Because he was able to turn the Dominican military into one of the strongest militaries in the Caribbean, a defiant to the government at the time would request Trujillo's help in ousting existing President Horacio Vasquez.

Early in 1930, President Horacio Vasquez was becoming older and weaker, therefore a new administration was to take power. The suspected successor was someone who was thought to be disliked by Rafael Estrella Urena, a young politician and lawyer who helped form the Republican Party. Therefore, Urena found it vital to reestablish government in the Dominican Republic. Through secrecy and deceit, Urena and Trujillo came together on plans to overthrow the government upon President Vasquez's death.<sup>4</sup> Trujillo agreed to help because he felt as though his glory days in the military were numbered; he even declared possible retirement after the President's expected death.<sup>5</sup> However, Trujillo was a man who craved success. In his biography of the dictator, Robert D. Crassweller states that he had an, "... urge to build, to transform, to glorify."<sup>6</sup> He had a desire for power and the overthrow presented an opportunity to attain that desire. Instead of working together, Trujillo decided to take the triumph himself. In the presidential election that followed the resignation of President Vasquez, Urena would second Trujillo's power; not elected President but placed as Vice President in Trujillo's first administration. On May 16, 1930, the young general was elected President Rafael Trujillo, which began the "Era of Trujillo" that lasted three decades.

### The dictatorship

The Trujillo regime lasted from 1930-1961 as a period of constant terror and uncertainty. In his book, *Trujillo: Little Caesar of the Caribbean*, German E. Ornes gives a first-hand account at what life was like during the Trujillo regime. Three years before Trujillo's assassination, Ornes writes, "[Dominicans] look healthy, well-fed... and fairly competent. However, they do not have... a voice... Under a misleading surface of seeming peace and quiet, terror runs its red threads through the fabric of Dominican society."<sup>7</sup> There was oppression in the Dominican Republic during the reign of Trujillo. This went as far as controlling what type of music was played on the radio.<sup>8</sup> *La Voz Dominicana*, was a radio network owned by Trujillo, that

<sup>4</sup> Robert D. Crassweller, *Trujillo: The Life and times of a Caribbean Dictator*, (New York: Macmillan, 1966), 61.

<sup>5</sup> German E. Ornes, *Trujillo: Little Caesar of the Caribbean*, (New York; Edinburgh ; Toronto: Thomas Nelson & Sons, 1958), 46.

<sup>6</sup> Crassweller, 44

<sup>7</sup> Ornes, 3

<sup>8</sup> Yazmin Nunez, "The Dominican Republic During the Trujillo Regime," *Mount Holyoke College*, 2009, Accessed 2015.

<https://www.mtholyoke.edu/~nunez20y/worldpolitics/contact.html>.



documented little but praise for the President, preventing Dominicans from hearing broadcast news.

Everything that was said and done in the Dominican Republic revolved around Trujillo. Any celebration that brought Dominicans together, whether it be a birthday or a sporting event, had to pay homage to Trujillo.<sup>9</sup> Moreover, the Dominican people had no freedom of speech. He used programs like the Military Intelligence Service (SIM), the youth that supported him, and education to oppress the people of his country.<sup>10</sup> The fear of being watched, not to mention the threat of possible death, prevented them from speaking out against the government. It is not a hidden fact that Trujillo administered the deaths of several leading opponents. For instance, that of Virgilio Martinez Reyna, the principal lieutenant of Vasquez's successor who urged the displacement of Trujillo, and his pregnant wife.<sup>11</sup> Though Trujillo is not directly tied to this murder, as he wasn't to many, it certainly was motivated by the threat Reyna posed. Therefore, Trujillo was successfully able to construct a government where he was solely in power, and did anything necessary to remove possible threats.

### History of the Mirabal family

From a town called Ojo de Ague on the north coast of the Dominican Republic, Enrique and Mercedes Mirabal raised four daughters on a farm they ran independently.<sup>12</sup> They also managed a coffee shop, meat market, and rice factory. They were a simple, middle-class Dominican family, looking to give their daughters the best in life. The girls, Patria, Dede, Minerva, and Maria Teresa, received an education at the Colegio Inmaculada Concepcion, a Catholic boarding school in La Vega. There the Mirabal sisters were cultured and educated, a rarity in a time when most women were not. The Mirabals raised their daughters to have minds of their own and to learn from the world around them.<sup>13</sup> This attribute would eventually contribute to the onslaught of their death.

Patria was born on February 27, 1924.<sup>14</sup> Patria was her given name in honor of her birthdate, the anniversary of the Dominican Republic's Independence Day. When she was seventeen, she married a farmer named Pedro Gonzalez and proceeded to have four children. She raised her family in the traditionally religious manner. Bélgica Adela, better known as Dede, was born February 29, 1925. She was not as politically involved as her three sisters were in the revolution to overthrow the Trujillo regime. She married when she was sixteen to Jaimito Fernandez and had three sons. Maria Teresa was born October 15, 1936 and was the

youngest of the Mirabal sisters. She attended the University of Santo Domingo, to study math. She married Leonardo Guzman, and together they had a daughter. She looked up to her older sister Minerva, and became involved in her sister's political activities. Although they all contributed some way in the efforts to overthrow the dictator, it was the middle sister that displayed great promise in the effort.

The sister that played a vital role in the destruction of Trujillo was Minerva. She was born on March 12, 1926. Many of her teachers claimed that she showed signs of great intelligence from an early age.<sup>15</sup> By the time she was seven, she could recite verses by French poets. She attended the University of Santo Domingo to study law and became the first female law graduate in the Dominican Republic. It was there she would meet her husband Manuel Justo, and expand her knowledge of corruption of her country. She and Manuel had two children, Minou and Manolito. Minerva admired the up-and-coming revolutionary, Fidel Castro. It was Castro's work in the Cuban revolution that influenced Minerva and her husband to establish The Fourteenth of June Movement, an organization working to overthrow the Dominican dictator.<sup>16</sup>

### The Fourteenth of June Movement

On June 14, 1959, troops from the Dominican Liberation Movement, which was made up of exiled Dominicans living abroad, were sent to the northern towns of Costanza Maimon to invade the Dominican Republic.<sup>17</sup> This attempt was meant to topple the dictatorship; however, word had preceded events and Trujillo's army were waiting for the troops. Many of the men died during this revolution attempt and it played as the inspiration for the name of a political group organized for internal resistance. Manuel, Minerva's husband, was the president of the group. Leonardo, Maria Teresa's husband, was the treasurer. Therefore, the sisters had primary affiliation with the resistance. Many young middle class Dominicans were now opposing the regime and Trujillo proceeded to arrest them one by one to prevent a revolution. More than one hundred members of the movement were arrested, including Minerva, Maria Teresa, Manuel, Leonardo and Patria's husband and son, Pedro and Nelson. In doing this, Trujillo only ignited their will to fight against the harsh ruling of the dictatorship.

With their affiliation with the Fourteenth of June movement, the sisters were given a codename, Las Mariposas, meaning The Butterflies. This would be the

<sup>9</sup> Ornes, 15

<sup>10</sup> Crasweller, 112

<sup>11</sup> Crasweller, 71

<sup>12</sup> Maura Hanrahan, "Remembering the Butterflies." *Herizons* 19, no. 2 (2005): 12, Academic Search Premier, EBSCOhost (accessed October 7, 2016), Par. 2

<sup>13</sup> Robinson, 5.

<sup>14</sup> Julia Alvarez, *In the Time of the Butterflies*, (Chapel Hill, NC: Algonquin Books of Chapel Hill), 2010.

<sup>15</sup> Alvarez, chap 1.

<sup>16</sup> Hanrahan, Par. 5.

<sup>17</sup> Alvarez, *In the times of the Butterflies*.

name that they would be recognized by forever. The sisters did everything they could for the movement. Patria offered her home for meetings, while Minerva and Maria Teresa were actively involved in the planning of a revolution. They hid weapons in their home, and provided food and shelter for those who were running from the government, all out of regard for the future of the Dominican people.<sup>18</sup> They were aware of the trouble and actively sought to fix it. However moral their actions were, it was still a man's world that they lived in. And when they stepped away from the womanly place in society, they found themselves regarded as more deviant than their male confidants.

### Trujillo and women

Before there can be a discussion on why the Mirabal sister's gender was so influential to their death, there must be insight to Trujillo's thoughts and relationships with women. It is evident that the dictator strongly displayed characteristics pertaining to machismo. This is a conception that became dominant in the Latin American culture after it was colonized by the Spanish and the Portuguese.<sup>19</sup> In his study, Nick Newman defines machismo as "a strong sense of masculine pride," or, "an exaggerated masculine identity."<sup>20</sup> Trujillo displays this characteristic in his journey to advance in society. He held himself assertively, showcasing an abundance of self-confidence, which ultimately allowed him to excel in the ranks of the military. He cared little about what people thought about him, which is why he had no problem taking the presidency away from Rafael Estrella Urena. He used people as tools to achieve his ambition for power. Yet the people he used most in his voyage to power were women, notably his wives. Because he used marriage as tools in societal advancement, it shows that Trujillo thought little about the emotions of women. By showing he had no consideration for the emotion of women, one can assume that he saw them as objects. Therefore, the assassination of three defenseless women was unproblematic to the dictator.

Trujillo's first marriage was in 1913 to a peasant girl named Amita.<sup>21</sup> This was before he gained prestige in the military. After he gained his initial success, he realized that he needed connections to continue advancing. He was a strategic man and decided to set his sights on a marriage that would raise his social platform. He decided to divorce Amita in 1925, leaving her to raise their living daughter (their youngest daughter passed at a young age) alone. In 1927, he married Bienvenida Ricardo Martínez, a girl from

an elite Dominican family. Bienvenida was not the young beautiful women that Trujillo predominately surrounded himself with. She was a little overweight and held a stern smile. However, she was a dedicated wife and stood by her husband in his rise to the presidency.<sup>22</sup> He believed that being married to a peasant girl would not award him prestige and elite status, something that worked tremendously to achieve. The fact that he was willing to leave his first wife, a woman whom he had already started a family with, shows that he was willing to use women to his advantage in his pursuit of power.

Even though Bienvenida was an honorable wife and stood by her husband's side, he would eventually divorce her for his mistress whom he would be married to until his death.<sup>23</sup> Since he openly had mistresses and constantly displayed his likings for the female community, it suggests that he had hardly any feelings, let alone respect, for Bienvenida. In the book "The Dictator Next Door" author Eric Rooda references a close friend of the Trujillo's, stating that when it came to choosing who would accompany him to social events it "was always a big to do because he had umpteen mistresses..."<sup>24</sup> He had numerous mistresses and cared little on how this presented his wife. He was more concerned with her elite family. Because he used marriage as a tool to ascend in power, it can be assumed that Trujillo had little respect for women. By refuting the emotions of the women he married, he turned them into objects. Therefore, when he made the decision to murder the Mirabal sisters, he was not seeing three women but just three things that were standing in his way of ultimate power.

Not only do his relationships with his wives show that he had little respect for woman, but his inclination towards the female community suggests that he held a sense of entitlement that accelerated his manhood. In a Stanford article, it is stated that, according to machismo, men have an unrestrained sexual appetite and they see it as their right to satisfy that craving however they chose.<sup>25</sup> These descriptions also compare to the way Trujillo reacted and felt about women; he saw them as a tool in getting what he desired. It was well known among the Dominican people that Trujillo had a taste for young women. His appetite for young women was something legendary on the island. In her article about the regime, Dominican Republic historian Nancy Robinson states, "families in the Dominican Republic used to hide their daughters when Trujillo was visiting their areas, for if one of these girls was seen and caught the eye of the dictator, there was no way of refusing

<sup>18</sup> Alvarez, *In the times of the Butterflies*.

<sup>19</sup> Newman, Nick. "Machismo: A Cultural Barrier to Learning." Young Latino Males: An American Dilemma. Accessed 2016. <http://cronkite.zine.asu.edu/latinomales/machismo.html>, 1.

<sup>20</sup> Newman, 3.

<sup>21</sup> Crasweller, 212.

<sup>22</sup> Crasweller, 212.

<sup>23</sup> Crasweller, 212.

<sup>24</sup> Eric Paul Rooda, *The Dictator Next Door The Good Neighbor Policy and the Trujillo Regime in the Dominican Republic, 1930-1945*, (Durham: Duke University Press), 2012, 163.

<sup>25</sup> "Machismo Sexual Identity." Stanford. Accessed 2016.

[http://web.stanford.edu/libproxy.csustan.edu/group/womenscourage/Reporto\\_Latin/ekobash\\_HIVmachismo\\_Latin.html](http://web.stanford.edu/libproxy.csustan.edu/group/womenscourage/Reporto_Latin/ekobash_HIVmachismo_Latin.html).

the invitations that were later delivered by messenger.”<sup>26</sup> This desire for women resulted in numerous extra-marital affairs. This also demonstrates the dictator’s thoughts on women. They were objects to be used for his pleasure and greed. A beautiful woman was only meant to please him. A beautiful woman was not supposed to have a mind of revolutionary ideas, something that Minerva Mirabal broadcast so eagerly. When three beautiful women advocated for the downfall of his power, it was something that Trujillo was not accustomed to. The macho man was supposed to be irresistible to the ill minded woman. Therefore, when one of the sisters rejected his advances, it would be a bruise to his ego.

On October 12, 1949, Trujillo held a party at his mansion in San Cristobal.<sup>27</sup> It was in commemoration of Columbus’ discovery of the Americas. The Mirabal’s invitation was personally delivered to them by the mayor of their hometown. Therefore, they felt that they had a duty to attend, even though they did not want to. Enrique Mirabal, Patria, Pedro, Minerva, Dede and Jaimito went to the social gathering. Trujillo used this event to execute his plan of seducing Minerva. He had previously seen her in a school play and from then on set his eyes on bedding her. However, she rejected him, something few women had ever done. Fearful that they would get reprimanded for Minerva’s disobedience the family sought to escape.<sup>28</sup> The outdoor party was interrupted by a storm, and that is when the Mirabal’s took the opportunity to leave the party unnoticed. Trujillo took this as a lack of respect, because all citizens were supposed to worship him and it was ill-mannered to leave his presence. This would ultimately start a war between the Mirabal family and the dictator, where he would arrest them and they would work more diligently at a revolution. Whatever the case may be, Minerva’s rejection hurt his manhood, something that was based on his ability to easily seduce women.

By rejecting his advances, Minerva struck the dictator’s ego. It was rare that women refused his advances. There was a fear that if they did reject him, then either they or their family would be punished. Because Trujillo had a firm ideology on the placement of women and his strong machismo characteristics, one can assume that being turned down by Minerva struck a nerve with him. These women were blatantly opposing him, speaking out against his authority. A macho man was not one that was disrespected by women. Being a man that was filled with machismo, to bruise his masculinity by rejecting him would be like disrespecting his power. Therefore, Trujillo found it necessary to place them as his number one concern.

A culture with a strong sense of machismo amongst its male population has rigid gender roles. Because women are traditionally associated with having attributes that are

nurturing and moral, they have been subjugated to duties of rearing the children and conducting household chores.<sup>29</sup> Whereas, through the conception of machismo, men are strong and assertive. Thus, the male is the “man of the house”. Although there are women in Latin American history that break free from the shackles that are produced by gender roles, it is, however, a rarity and often frowned upon. Therefore, when women were the faces of resistance it did not sit well with the dictator.

The Mirabal sisters acted in such a way that contradicted traditional gender roles. Minerva and Maria Teresa were educated and showed little trouble with speaking their minds. In 1960, they both were arrested and sentenced to five years in prison for “threatening the security of the state.”<sup>30</sup> These were not women who sat in their house and silently cared for their home. They were actively involved and as a result defied gender roles. Not only this, but they were educated. Minerva and Maria Teresa both had degrees in higher education.<sup>31</sup> Their education offered them a liberal perspective of life. By being active in the revolution, they defied the role of subdue housewife and presented a more modern woman. Since Trujillo possessed characteristics of machismo, one can assume that he did not approve of these women brazenly attacked him head on. Because the Mirabal sisters represented a shift in gender norms and opened the doors for the future women to resist patriarchy, it bruised Trujillo’s machismo, thus making the sisters his number one concern.

## Conclusion

In no other murder ordered by Trujillo were there women that were specifically targeted alone. Also, the sisters’ husbands were more involved in the resistance than they were, yet Trujillo spared their lives. Therefore, the Mirabal sisters’ murder did not take place merely to get rid of those defying the government, but it was motivated by the challenging behaviors the women displayed. They contradicted traditional gender roles, hindering the beliefs that were firm in machismo. These were women who rejected the common belief that women were to be submissive and only care for the house. Minerva bruised Trujillo’s ego by rejecting his advanced. In turn, the sisters again rejected the ideals of machismo because a woman was intended to ease a macho man’s sexual need. Moreover, it did not prove hard for Trujillo to murder three defenseless women because he saw women as objects, caring little for their emotions. This shows in the relationships he held with his wives and how he used his wives for social status, showing little concern for the emotions of the women he married. His overall treatment of women, regarding his

<sup>26</sup> Robinson, 2.

<sup>27</sup> Nunez, “The Dominican Republic”.

<sup>28</sup> Robinson, 2.

<sup>29</sup> “Machismo Sexual Identity.”

<sup>30</sup> Nunez, “The Dominican Republic.”

<sup>31</sup> Hanrahan, par 3.

sexual appetite, also dictated that he saw women as mere objects. He used most of the young Dominican women for sexual satisfaction. They were for his own needs. By following the machismo conception, Trujillo's motivation to ordering the assassination of the Mirabal sisters revolved more around the fact that they were women rather than the fact that they were deviants of the government.

It is the beauty of the butterfly that attracts a person to touch its wings, something that ultimately harms the insect. It was the bravery that the Mirabal sisters had mixed with

their beauty that hastened their deaths. Their resistance towards a government that was repressive to its citizens was something to be admired. Although they are not well-known figures in history by many people, the date of their death lives on as the International Day Against Violence of Women, and is commemorated worldwide. They displayed courage and made a valiant effort at bettering the lives of their fellow Dominicans. By rejecting traditional gender roles and resisting the oppressing authority, the Mirabals proved to be role models women everywhere.

## References

- Alvarez, Julia. *In the Time of the Butterflies*. Chapel Hill, NC: Algonquin Books of Chapel Hill, 2010.
- Crassweller, Robert D. *Trujillo: The Life and times of a Caribbean Dictator*. New York: Macmillan, 1966.
- Diederich, Bernard. *Trujillo: The Death of the Goat*. Boston: Little, Brown, 1978.
- Gleijeses, Piero. *The Dominican Crisis: The 1965 Constitutionalist Revolt and American Intervention*. Baltimore: Johns Hopkins University Press, 1978.
- Hanrahan, Maura. "Remembering the Butterflies." *Herizons* 19, no. 2 (2005): 12. Academic Search Premier, EBSCOhost. accessed October 7, 2016.
- Newman, Nick. "Machismo: A Cultural Barrier to Learning." *Young Latino Males: An American Dilemma*. Accessed 2016. <http://cronkitezine.asu.edu/latinomales/machismo.html>
- Nunez, Yazmin. "The Dominican Republic During the Trujillo Regime." *Mount Holyoke College*. 2009. Accessed 2015. <https://www.mtholyoke.edu/~nunez20y/worldpolitics/contact.html>
- "Machismo Sexual Identity." Stanford. Accessed 2016. [http://web.stanford.edu/libproxy.csustan.edu/group/womenscourage/Repro\\_Latin/ekobash\\_HIVmachismo\\_Latin.html](http://web.stanford.edu/libproxy.csustan.edu/group/womenscourage/Repro_Latin/ekobash_HIVmachismo_Latin.html)
- Ornes, German E. *Trujillo: Little Caesar of the Caribbean*. New York ; Edinburgh ; Toronto: Thomas Nelson & Sons, 1958.
- Robinson, Nancy. "Women's Political Participation in the Dominican Republic: The Case of the Mirabal Sisters." *Caribbean Quarterly* 52, no. 2/3, Unraveling Gender, Development and Civil Society in the Caribbean (June 01, 2006): 172-83. Accessed December 09, 2016. <http://www.jstor.org.libproxy.csustan.edu/stable/10.2307/40654568?ref=search-gateway:5874a0f8ac4966e86dfb4fee1efc4a16>
- Roorda, Eric Paul. *The Dictator Next Door The Good Neighbor Policy and the Trujillo Regime in the Dominican Republic, 1930-1945*. Durham: Duke University Press, 2012.

# The myth of Cleopatra: Shrewd sovereign or wanton woman

Rebecca Rooker\*

*B.A. Candidate, Department of History, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

This project is a chronological study of the adaption and evolution of myths and their effects on historical accuracy. For a myth to survive it must adapt to each subsequent time period, taking on elements of the current society to appeal to its audience. Yet, the factual truth behind these tales is often lost over time. The liberties taken when restructuring the facts often lead to common themes of exaggeration or misconception. Perhaps one of the most misunderstood figures in history is Cleopatra VII. A woman cloaked in mystery, Cleopatra VII has long been a topic of tremendous interest throughout history. Ruling during a tumultuous period, her supposed risqué life-style and alleged epically tragic death have surrounded the queen's life with countless myths and legends. Importantly, literary interpretations have and continue to shape public and mainstream understandings of Cleopatra. To understand this process of the evolution of myths, sources spanning from Cleopatra's lifetime to the twentieth century were analyzed to highlight each subsequent time period that contributed to an origin, shift, or addition to Cleopatra's reputation. Clearly proving her longevity, Cleopatra has endured the test of time by adapting to each new generation. However, due to this adaptability, Cleopatra's real and deserved reputation as a shrewd sovereign has been distorted and undermined by the tale of the exotic enchantress. Each of the various revivals of the Queen's story were not isolated, but built on previous ones in new imaginative ways creating the myth that is Cleopatra. One finds that modern interpretations of Cleopatra's reputation are largely skewed or false, however, her true identity can be found buried underneath years of differing historical interpretations and artistic liberties.

*Keywords:* Cleopatra, myths, social symbols, gender, stereotype

---

## Introduction

Myths are the tales of fantastic feats of bravery, arduous journeys, and hopelessly romantic love stories. Yet, the factual truth behind these tales is lost over time. For a myth to survive it must adapt to each subsequent time period taking on elements of the current society to appeal to its audience. The liberties taken when restructuring the facts often lead to common themes of exaggeration or misconception. For example, Lady Godiva, an 11th century noblewoman, a generous patroness of the church and wealthy landowner, is famous for accepting her husband's challenge to ride through the streets nude.<sup>1</sup> Adaptations of this story have developed over time to paint Lady Godiva as a victim or a figurehead of feminism. Today, she is best known as a label for a chocolate company and is associated with sex and guilty pleasure. Yet, the earliest renditions show that Godiva's famous ride was done as an attempt to reduce the harsh taxation enforced by her husband. By studying the origins and history of this myth one has a greater understanding of Lady Godiva's deserved reputation. One of the most misunderstood and powerful

woman to suffer from this unfortunate trend is Cleopatra VII.

A woman cloaked in mystery, Cleopatra has long been a topic of tremendous interest. Ruling during a tumultuous period, her supposed risqué life-style and alleged tragic death have surrounded the Queen with countless myths and legends. "A woman who worshiped crude gods, dominated men, slept with her brothers and gave birth to bastards," is how twenty-first century author Joyce A. Tyldesley describes Cleopatra VII Thea Philopator.<sup>2</sup> However, when examining the oldest known sources, one finds that Cleopatra was seen as a powerful and witty ruler. Literary interpretations have shaped public and mainstream understandings of Cleopatra and continue to do so to this day. Much like an archaeological dig, one finds that the different pieces which make up the Queen's modern reputation are buried underneath many levels of historical strata. To unearth the truth, one must analyze the primary sources from specific time periods that contribute to an origin, shift, or addition to Cleopatra's reputation. Using *longue durée* history, a chronological study of something

---

\* Corresponding author. Email: [rooker@csustan.edu](mailto:rooker@csustan.edu)

<sup>1</sup>J. Roud Simpson, *Lady Godiva*. A Dictionary of English Folklore (2003): Oxford Reference (Oxford University Press) (accessed February 22, 2017).

<sup>2</sup>Joyce A. Tyldesley, *Cleopatra: Last Queen of Egypt*. (New York, NY: Basic Books, 2008), 206.

from its origins to the most recent references, one can correct these misunderstandings and see how Cleopatra was, in fact, a shrewd sovereign and not the wanton woman seen in legend.

Cleopatra VII Thea Philopator was thrown into a position of power at a young age. Inheriting the throne at the age of 18, she shared power with her younger brother, Ptolemy XIII, in accordance with Egyptian custom.<sup>3</sup> Coming into conflict with her brother and with the insertion of Rome's power, Cleopatra played an intricate game to keep her power and position. "A capable, clear eyed sovereign, she knew how to build a fleet, suppress an insurrection, control a currency, alleviate a famine."<sup>4</sup> She mastered international politics early in her twenty-two year reign as Egyptian queen: holding turbulent and ambitious Rome at bay by aligning herself with two of its most prominent players: Julius Caesar and Mark Antony. Julius Caesar set Cleopatra upon the throne and sometime later they had a child together, giving Cleopatra a possible avenue for power in Rome. After the violent murder of Caesar, Cleopatra quickly shifted gears and allied herself with Mark Antony, a Roman general. Together they also had children and would fight in the Battle of Actium against Rome and Octavian, Julius Caesar's nephew and heir. After losing the battle Antony was found dead, Cleopatra disappeared from the records, and Octavian had Caesar's bastard executed.

The first and oldest source on the great queen's identity was Cleopatra herself. With a reputation as Egypt's most infamous queen, it often comes as a shock to learn that Cleopatra was actually Greek. The Queen's royal lineage goes all the way back to Alexander the Great's Macedonian General, Ptolemy I Soter I, who gained control of Egypt shortly after Alexander's death.<sup>5</sup> Cleopatra was a woman who knew how to manipulate the cultural traditions of both Egyptian and Greek heritage when the situation best suited her. "Her coin portraits vary (and not according to her age), from sweet princess through Hellenistic Greek queen to dominant ruler, the last recalling the butch images of her predecessors...."<sup>6</sup> Knowing well the importance of a strong home front, Cleopatra, like the pharaohs of Egypt's past, originally portrayed herself as a reincarnation of a god. However, when Cleopatra entered international politics, particularly with Rome, she took on a more Greek figure. By manipulating her own image, Cleopatra began the trend of her evolving reputation and eventual myths.

Although he speaks neither of her reputation nor of their relationship, Julius Caesar gives one a firsthand look

at the politics and issues Cleopatra dealt with while she maintained her position as rightful ruler of Egypt. Caesar's role in Cleopatra's life was not brought about by seduction, but rather by the business of Rome. Pompey, a Roman general, had led a rebellion against Caesar in the struggle for control of Rome but had failed. Fleeing to Egypt, he was executed by Ptolemy XIII. Early on, Cleopatra's control of the throne was not secure and Caesar played an intricate role in settling the matter. Caesar states, "The will of Ptolemy Auletes had declared the elder of his two sons and the elder of his two daughters joint heirs to the throne...."<sup>7</sup> With this passage, one can see that Caesar seemed to have no opinion of the Queen or her reputation other than as a woman who had claim to the throne. It was Caesar's decision to act as arbitrator that gave Cleopatra her reason for an alliance. At this time there is no hint of the promiscuous, seductive woman who steals Caesar's affections. Instead, one merely finds a political alliance that helped rid Cleopatra of an obstacle to her birthright.

In the first century, roughly two decades after the death of Cleopatra, Josephus Flavius, a Jewish historian living in the Roman Empire, and Plutarch, a Greek biographer, bring about the first layer of mythology marking a tremendous shift in Cleopatra's reputation. Giving an unflattering interpretation of the Queen, Josephus speaks of Cleopatra and Mark Antony's relationship by alluding to several morally flawed actions and traits, such as murder and seduction.<sup>8</sup> Writing under Roman influence largely biased Josephus's position, causing him to portray her as an enemy of the state. Combining her original reputation with the slanders of Josephus, Plutarch adds several new myths to her story. He also makes the interesting distinction that it was not her beauty, but her brain, that attracted men.<sup>9</sup> Although there is clearly a romantic element to Plutarch's writing, Cleopatra is still a respected ruler. Additionally, Plutarch gives one of the first renditions of Cleopatra and Antony's relationship and their death. Despite the fact that Plutarch sees Cleopatra as the origin of her lover's faults, she is still more respected than Antony because she dies in a quick, clean manner. Plutarch was of the opinion that she killed herself with an asp, or some other type of poison, after Antony's death.<sup>10</sup>

It is not until the Middle Ages that one sees a resurgence of interest in Cleopatra's story through the writings of the Italian poet Dante. Writing about the occupants of the second circle of hell, "...wanton Cleopatra" shows that Dante has clearly decided on the nature of her reputation.<sup>11</sup> This was a circle reserved for

<sup>3</sup>Stacy Schiff. *Cleopatra: A Life*. (New York: Little, Brown and, 2010), 20.

<sup>4</sup>Schiff, 2.

<sup>5</sup>Susan Walker, "Cleopatra: From History to Myth." *History Today* 51, no. 4 (April 2001): 223.

<sup>6</sup>Walker, 2.

<sup>7</sup>Julius Caesar and John Warrington. *War Commentaries: De Bello Gallico and De Bello Civili*. (London: Dent, 1953), 301.

<sup>8</sup>Josephus Flavius, William Whiston, *Josephus: The Complete Works*. (Tennessee: Thomas Nelson Publishers, 1998), 484.

<sup>9</sup>Plutarch, Arthur Hugh Clough, and John Dryden. *The Lives of the Noble Grecians and Romans*. (New York: The Modern library, 1932), 883.

<sup>10</sup>Plutarch, 1152.

<sup>11</sup>Alighieri, Dante, Robert Pinsky, and Nicole Pinsky. *The Inferno of Dante: A New Verse Translation*. (New York: Farrar, Straus and Giroux, 1994), 49.

those who lust and, as Cleopatra was a great source of lechery, she fits in well. In contrast, during the Renaissance, Shakespeare sets the stage for modern interpretations by mixing several aspects of past renditions and turning her story into something immortally romantic. Despite the fact that the play *Antony and Cleopatra* focuses largely on the physical aspects of Cleopatra and Antony's relationship, one comes to recognize a much deeper bond beyond carnal pleasures as each commits suicide, unable to live without the other.<sup>12</sup>

The 1963 film *Cleopatra* is a culmination of the various shifts and additions of Cleopatra's story. Unfortunately, Cleopatra's personal perspective and those of her

contemporaries were almost entirely overlooked. Taking the works of authors, such as Shakespeare, and exaggerating them, Hollywood sexualized the character of Cleopatra; appealing to the modern masses. Cleopatra's true identity, cleverly manipulated from the start, can be found buried underneath years of differing historical interpretations and artistic liberties. The competent sovereign has been distorted and undermined by the tale of the exotic enchantress. Still the subject of movies, plays, books, and artwork, one wonders how much further the Queen's story shall transform? Over the next hundred years, what will be added to her ever evolving myth, and what pieces of our society will she reflect?

## References

### Primary Sources

- Alighieri, Dante, Robert Pinsky, and Nicole Pinsky. *The Inferno of Dante: A New Verse Translation*. New York: Farrar, Straus and Giroux, 1994.
- Caesar, Julius, and John Warrington. *War Commentaries: De Bello Gallico and De Bello Civili*. London: Dent, 1953.
- Cassius, Dio, Earnest Cary, and Herbert Baldwin. Foster. *Dio's Roman History: In Nine Volumes*. Vol. VI. Cambridge, MA: Harvard University Press, 1917.
- Josephus, Flavius, William Whiston, and Flavius Josephus. *Josephus: The Complete Works*. Tennessee: Thomas Nelson Publishers, 1998.
- Pliny, and William Henry Samuel. Jones. *Natural History*. Vol. VI. Cambridge (Mass.): Harvard University Press, 1961.

- Plutarch, , Arthur Hugh Clough, and John Dryden. 1932. *The Lives of the Noble Grecians and Romans*. New York: The Modern library.
- Shakespeare, William. *Complete Works of William Shakespeare*. Glasgow: HarperCollins, 1994.

### Secondary Sources

- Cleopatra*. Directed by Joseph L. Mankiewicz. 20th Century-Fox, 1963. Netflix. Accessed April 16, 2016. Netflix.
- Frank, Robert Worth. *Chaucer and The Legend of Good Women*. Cambridge, MA: Harvard University Press, 1972.
- Gardner, John. *The Poetry of Chaucer*. Carbondale, IL: Southern Illinois University Press, 1977.

<sup>12</sup>William Shakespeare. *Complete Works of William Shakespeare*. (Glasgow: HarperCollins, 1994), 1210-1252.

# The divinity of Jesus in early Christian thought: A historiographical approach

Joshua Tanis\*

B.A. Candidate, Department of History, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

Did the early Christians regard Jesus as divine? Against those who would claim that early Christian did not have a divine picture of Jesus, such as James D.G. Dunn, the evidence from the earliest sources of Christianity warrant the claim that they believed that Jesus was divine by placing him within the identity of the one God of Israel. Jewish monotheism is explained and shown to be exclusive. Paul of Tarsus, being the earliest Christian writer, was a Jew who held to this form of monotheism. The paper then examines specific passages from Paul's undisputed letters; Philippians 2:6-11, 1 Corinthians 8:6, Romans 10:9-13, 1 Corinthians 15:24-28. It is argued that Paul addressed Jesus as *Kyrios* (Lord) when alluding to Old Testament monotheistic passages that refer to YHWH God by the same title (*Kyrios*), cementing the claim that Paul identified Jesus with the God of Israel. It is also noted that Paul is neither binitarian (there are only two persons in the Godhead) nor modalist (Jesus as a mode of God or just another manifestation of the God of Israel) in his view of God. The last move in the argument claims that Paul and other Christians were in agreement on this matter. Of course, this argument will probably be of more interest to religious students, or students of religion, or both. However, one should remember how this religion, Christianity, has radically shaped the world around them, and still impacts the lives of numerous people around the world. Despite secularism, this religious idea is still significant to intellectual history.

*Keywords:* Jesus, divine, theology, New Testament studies, early Christianity

---

## 1. Introduction and methodology

Did the early Christians regard Jesus as divine? The letters of Paul are some of the earliest primary sources for information about early Christianity. Thus, Paul is central in much of the debate regarding whether or not early Christians viewed Jesus as divine. Many New Testament (NT) historians such as James D.G. Dunn<sup>1</sup> and Maurice Casey<sup>2</sup> have argued that Paul did not regard the figure of Jesus as divine, and Christians did not regard Jesus so until the time of the Gospel of John or the Apostolic Fathers. If this is the case, what one has is a progressive and evolving view of the divinity of Jesus, having him being raised higher and higher until he reaches the status of God himself. If this view is correct, historians have to take into account why this view changed within such a short time. However, if this view is mistaken, historians are doing an injustice to the rituals and beliefs of this ancient religious sect. This is a mistake that historians need to avoid. An example of this happening in NT studies

is when a majority of NT scholars viewed 1st century Judaism as a religion of work-righteousness (a view that one can "earn" their righteousness). Thankfully however, the NT scholar E.P. Sanders in his study called *Paul and Palestinian Judaism* (1977), dispelled this view and caused a revolution in the way NT scholarship looked at ancient Judaism. Thanks to Sanders, the consensus no longer views Judaism as a simple salvation by works view. The work of E.P. Sanders has made NT historians appreciate the Jewishness of the NT writers, especially Paul. In this essay, I argue that Dunn and others have misread Paul and thus do not capture one great aspect of his thought: the divine view of Jesus of Nazareth as a revelation of the God<sup>3</sup> of the Jews.

In this essay, I refer to Pauline passages from his undisputed letters<sup>4</sup> to see if one can find references to Jesus in relation to divinity in Paul's letters, and to see if one is justified in believing that the early Christians worshiped Jesus. However, this must be qualified and nuanced at several points. For example, Paul believed in Jewish

---

\* Corresponding author. Email: [jtanis1@csustan.edu](mailto:jtanis1@csustan.edu)

<sup>1</sup>James D. G. Dunn, *The Theology of Paul the Apostle* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2006).

<sup>2</sup>Maurice Casey, "Lord Jesus Christ: A Response to Professor Hurtado," *Journal for the Study of the New Testament* 27, no. 1 (September 2004): 83-96. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>3</sup>I will capitalize "God" only when it correlates with monotheistic beliefs that require it.

<sup>4</sup>John W. Drane, "Paul," In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan, (New York: Oxford University Press, 1993), 578.



monotheism, so when one reads his letters, one should not believe that Paul thinks of the divinity of Jesus in the terms of placing another god alongside the God of Israel. So first, I will examine nature of Jewish monotheism, then briefly establish the fact that Paul was a Jewish thinker<sup>5</sup>. After that, I will proceed to examine Pauline passages concerning the identity of Jesus for Paul and then ask if Paul differed in this respect from other early Christians. The evidence from the earliest sources of Christianity warrant the claim that they believed that Jesus was divine by placing him within the identity of the one God of Israel<sup>6</sup>

## 2. Jewish monotheism

Hundreds of years before the time of Paul, the Jewish people distinguished their god, Yahweh (YHWH), from all other reality and other gods<sup>7</sup>. This left no room for their theologians (such as Paul or other writers) to worship other gods, not even angelic mediators or exalted prophets could be worshiped. Paul could view Jesus as divine, but not another god. That is to say, it is thoroughly inconceivable that Paul would have thought that there was any other divinity beside the God of Israel, so this monotheism will shape the way one will talk about Jesus (see Section 4). By the first century, exclusive monotheism was one of the defining hallmarks of the Jewish people. Even the Roman historian Tacitus wrote that, “the Jews acknowledge one God only, and conceive of Him by the mind alone” no doubt commenting on the Jewish belief of worshipping one god and not creating idols of him (see Exodus 20:1-6)<sup>8</sup>. Jews themselves used two themes in the rhetoric of Jewish monotheism; God’s universal sovereignty and his uniqueness<sup>9</sup>. What is meant by “God’s universal sovereignty” was that everything in creation, including “pagan” nations and evil in all its forms, were ultimately subject to God, that, “the one God created everything and rules over all[.]”<sup>10</sup> “God’s uniqueness,” has several implications that need to be unpacked. Much of the rhetoric of foreign gods in this time made them out to be nothing but material idols (see Isaiah 40:18-20; *Testament of Abraham*) and even from

the angels, which are his servants. Jews were very aware of their unique devotion to YHWH, Larry Hurtado pointed out the fact that devout Jews probably used the Decalogue (the Ten Commandments) and the *Shema* (a prayer found in Deuteronomy 6:4-5) in instructions and daily prayers, so, “[o]bservant Jews, therefore, were daily aware of their allegiance to the one God alone.”<sup>11</sup>

It has been argued that Judaism was originally henotheistic, then after the time of the Babylonian exile, it became thoroughly monotheistic<sup>12</sup>. However, by the first-century, the evidence shows that exclusive monotheism was the dominant worldview of the Jews. This often set them apart from their “pagan” neighbors, who charged atheism against Jews for refusing to acknowledge the reality of others’ gods<sup>13</sup>. First Century Judaism spoke of their God as the only true one, who made everything other than himself, and who had chosen the nation of Israel, through whom he would work to restore his creation which had been spoiled by evil<sup>14</sup>.

## 3. Paul the Jew<sup>15</sup>

Paul is widely accepted among scholars of the New Testament studies as a Jewish thinker. One scholar wrote that, “[d]espite the objection of a small but vocal minority, it seems certain that Paul was not only Jewish but also a Pharisee, just he as himself claims [in Philippians 3:4b-11.]”<sup>16</sup> In his letters, Paul states that he used to persecute the early Christian church (see Galatians 1:13). Paul also had a revolutionary religious experience, which converted him to the movement he had once violently opposed<sup>17</sup>. Paul had once persecuted the Christian movement (see Galatians 1:13, 1 Corinthians 15:9, Philippians 3:6 and in the Evangelists record in Acts 8:3-4). However, he himself became a Christian when on the road to Damascus he thought he encountered Jesus himself (see 1 Corinthians 9:1; 15:8-11, Galatians 1:15-16 and the Evangelists record in Acts 9:3-9; 22:6-11; 26:12-19). This radically changed his mission, and it clearly impacted the way that he interpreted Jewish Scripture. However, it is clearly evident that he was devoted to the God of Israel

<sup>5</sup> Alan F. Segal, “Paul’s Jewish presuppositions” In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn (Cambridge, U.K.: Cambridge University Press, 2003), 159.

<sup>6</sup> Richard Bauckham, *Jesus and the God of Israel: God Crucified and Other Studies on the New Testament’s Christology of Divine Identity* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2008), 216.

<sup>7</sup> Baruch Halpern, “Monotheism,” In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan, (New York: Oxford University Press, 1993), 526.

<sup>8</sup> Larry W. Hurtado, “First-Century Jewish Monotheism.” *Journal for the Study of the New Testament* 71 (September 1998): 3-26, p. 10, Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>9</sup> Hurtado, “First-Century Jewish Monotheism,” 12-3.

<sup>10</sup> *Ibid*, 13.

<sup>11</sup> Bauckham, 5

<sup>12</sup> Baruch Halpern, “Monotheism,” In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan, (New York: Oxford University Press, 1993), 526-7.

<sup>13</sup> Dunn, 34.

<sup>14</sup> N.T. Wright, *The New Testament and the People of God* (Minneapolis: Fortress Press, 1992), 248-52.

<sup>15</sup> See Alan F. Segal, *Paul the Convert: The Apostolate and Apostasy of Saul the Pharisee*, (New Haven: Yale University Press, 1990), 3-114, for a fuller discussion on Paul’s experiences as a Jew and a convert within his social and religious context.

<sup>16</sup> Alan F. Segal, “Paul’s Jewish presuppositions” In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn (Cambridge, U.K.: Cambridge University Press, 2003), 159.

<sup>17</sup> Klaus Haacker, “Paul’s life” In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn (Cambridge, U.K.: Cambridge University Press, 2003), 22-24.

and the holy writings of the Jews<sup>18</sup>. This means that, despite his radical conversion experience, Paul did not leave Jewish monotheism, and works with a Jewish framework when he conducts his theology, and not a pagan polytheistic (or even pagan monotheistic) background. He used the Jewish Scriptures and shaped them around the person of Jesus. If Paul talks about Jesus' divinity, one should expect that he will use the Old Testament in his theology of Jesus. So what did Paul have to say concerning the identity of Jesus?

#### 4. Pauline passages on the divine Jesus

Some scholars have frequently stated that, regardless of what earlier Christianity taught, by the time the Gospel of John and the book of Hebrews were written, Christians had begun to view Jesus as fully divine (see John 1:1-5; Hebrews 1:1-14)<sup>19</sup>. Victor Rhee stated that the early passages of Hebrews expound upon, "three aspects of Christ's existence (preexistence, incarnation and exaltation)."<sup>20</sup> These aspects can be found in Paul's writings. To limit the scope (and length) of this paper, I shall focus on four Pauline passages, all taken from his undisputed letters: Philippians 2:6-11, 1 Corinthians 8:6, Romans 10:9-13 and 1 Corinthians 15:24-28. Paul often alludes to Old Testament texts, which were considered Sacred Scripture by the Jews.

##### 4a. Philippians 2:6-11

One of the most critical and controversial passages where Paul does this is Philippians 2:6-11:

[Christ Jesus], who though he was in the form of God, did not count equality with God a thing to be grasped, but emptied himself, taking the form of a servant, being born in the likeness of men. And being found in human form he humbled himself and became obedient unto death, even death on a cross. Therefore God has highly exalted him and bestowed on him the name which is above every name that at the name of

Jesus every knee should bow, in heaven and on earth and under earth, and every tongue confess that Jesus Christ is Lord, to the glory of God the Father."<sup>21</sup>

Some say that this passage implied Jesus' preexistence, incarnation and divinity, while others see it as portraying Jesus as highly exalted, yet not quite divine<sup>22</sup>. In "The Theology of Paul the Apostle," J.D.G. Dunn argued that Paul in this Philippian passage alludes to, "the Genesis accounts of creation and disobedience of Adam, and [...] the Philippians passage simply contrasts the self-sacrifice of the human Jesus with the hubris of Adam in reaching for divinity[see Genesis 3:5.]"<sup>23</sup> The NT scholar Casey agrees with Dunn's ideas and says that Jesus' exaltation made him a judge of the world at the end of time, but this does not make him divine in Paul's mind<sup>24</sup>.

However, there are problems with these interpretations. Some have argued that "equality with God" is not something that is possible for Jesus to try and reach for, but rather something that he already possesses, but does not exploit for his own gain<sup>25</sup>. For example, Richard Bauckham has argued that a better translation of the passage is, "[Christ Jesus], though he was in the form of God, did not regard equality with God as something to be used for his own advantage[.]"<sup>26</sup> Also, other scholars have proposed better, more direct Old Testament allusions used by Paul. Simon Gathercole has pointed out (inspired by the work of Richard Bauckham) that this Philippians passage correlates with various texts in Isaiah, "for I am God, and there is no other. [...] Before me every knee will bow; by me every tongue will confess. They will say of me, 'In the Lord alone are righteousness and strength.'" [Isaiah 45:22-24]<sup>27</sup> We have here an Old Testament passage that is fiercely monotheistic which Paul is quoting directly in his letter, yet placing the figure of Jesus in the center of it. Some may retort that it is "the Father" that is getting the glory, yet one cannot help but note that Paul gives Jesus the title, "Lord" despite the fact that he is alluding to an Old Testament passage, which uses the word (*Kyrios* [Greek]) to refer to the Jewish God YHWH, the only God. Thus "Lord" in this context cannot mean anything other

<sup>18</sup> Alan F. Segal, "Paul's Jewish presuppositions" In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn (Cambridge, U.K.: Cambridge University Press, 2003), 164-7.

<sup>19</sup> Thomas Kazen, "The Christology of Early Christian Practice," *Journal Of Biblical Literature* 127, no. 3 (2008): 591-614. Academic Search Premier, EBSCOhost. Accessed February 15, 2016.

<sup>20</sup> Victor Rhee, "The Role of Chiasm for Understanding Christology in Hebrews 1:1-14," *Journal Of Biblical Literature* 131, no. 2 (2012): 341-62. Academic Search Premier, EBSCOhost. Accessed February 15, 2016; see also Bauckham, 233-53.

<sup>21</sup> Segal, *Paul the Convert*, 62. Segal's translation.

<sup>22</sup> Larry Hurtado, "Paul's christology" In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn, (Cambridge, U.K.: Cambridge University Press, 2003), 196.

<sup>23</sup> Dunn, 282.

<sup>24</sup> Maurice Casey, "Lord Jesus Christ: A Response to Professor Hurtado," *Journal for the Study of the New Testament* 27, no. 1 (September 2004): 83-96. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>25</sup> Gerald F. Hawthorne, "Philippians, The Letter of Paul to the," In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan, (New York: Oxford University Press, 1993), 590-1.

<sup>26</sup> Bauckham, 43.

<sup>27</sup> Simon J. Gathercole, "Paul's Christology," In *The Blackwell Companion to Paul*, edited by Stephen Westerholm, 172-87, (Oxford: Wiley-Blackwell Publishing, 2011), 180.

than *Kyrios* being used as a substitute for name of YHWH<sup>28</sup>

With this in mind, I agree with Gathercole when he stated that, “Paul assigns to Jesus a remarkably exalted status, even seeing him as sharing with the Father in the divine identity. He describes Jesus in these terms not in ways that set out to challenge traditional Jewish monotheism, but precisely using Old Testament passages that emphasize it.”<sup>29</sup> James F. McGrath has objected to this conclusion, saying that hearers of the passage would not have picked up on the allusion to the Isaiah passage because it was not often alluded to in Second Temple Jewish texts and that to include Jesus within the divine identity would be inconsistent with Paul’s monotheism<sup>30</sup>.

One has seen that a divine portrait of Jesus in Paul is a better interpretation than that of Dunn and Casey and McGrath’s arguments are not strong enough to challenge that conclusion. For one thing, McGrath assumes that to be a monotheist, one must be a unitarian, Casey has the same point of view and states that, “[t]he deity of Jesus is however inherently unJewish. The witness of Jewish texts is unvarying: belief that a second being is God involves departure from the Jewish community.”<sup>31</sup> Hurtado has challenged this by pointing out that in Second Temple Jewish literature one can see example divine attributes (i.e. Wisdom) being personified<sup>32</sup>. Bauckham has claimed that, while Jewish monotheism did not have analogous precedents, it was open for such development<sup>33</sup>. Secondly, even if the listeners of Paul’s letter did not catch the allusion to Isaiah, it is difficult to believe Paul did not.

#### 4b. 1 Corinthians 8:6

A second passage that arguably places Jesus Christ within the “divine identity,” is 1 Corinthians 8:6, which follows as: “but for us [there is] one God, the Father, from whom [are] all things and we for him, and one Lord, Jesus Christ, through whom [are] all things and we through

him.”<sup>34</sup> Many scholars believe this passage to be Paul’s reworking of the *Shema*, “Hear, O Israel: The *Lord our God, the Lord is one.* (Deut. 6:4)[.]”<sup>35</sup> McGrath correctly notes that N.T. Wright and Richard Bauckham have argued that Paul has “split the Shema” and included Jesus within the identity of God<sup>36</sup>. Francis Watson and J.D.G. Dunn however argue that this passage does not at face value make the figure of Jesus participate in the creation of the world (the “through” rather implies mediation, but see also Romans 11:34-36)<sup>37</sup>. McGrath and others have also shied away from the idea that Paul regards Jesus as divine, saying that for Paul to have such a radical innovation as to put Jesus on the divine level is simply too bold to believe, and since he does not clarify his meaning, one is not warranted to make that claim<sup>38</sup>. However, the fact that Paul adapted his theology around Jesus Christ while calling him *Kyrios* (“Lord”) when alluding to Old Testament monotheistic passages that refer to YHWH God by the same title (*Kyrios*), one has the evidence they need to warrant the claim that Paul considered Jesus divine.

#### 4c. Romans 10:9-13

Another example of this can be shown in the passage in Romans. Paul states in Romans 10:9 that, “If you confess with your lips that Jesus is Lord, and believe in your heart that God raised him from the dead, you will be saved[.]” Using the Greek word *kyrios* for Lord, then in Romans 10:13 he quotes the Old Testament text of Joel, “all who call upon the name of the Lord [*kyrios*] will be saved.”<sup>39</sup> This verse positively places Jesus within the identity of God: *Kyrios*. While that word itself need not have connotations to divine meaning, Wright correctly noted, “Paul takes the *kyrios* of the Septuagint, in passages where he is very well aware that in context it referred to YHWH himself, and understands it as a reference to Jesus.”<sup>40</sup> So as strange as it may seem, Paul

<sup>28</sup> Bauckham, 190; Hurtado, *Lord Jesus Christ*, 21; “It is clear that *Kyrios* was used by Greek-speaking Jews for the Hebrew tetragrammaton (*Yahweh*) when reading aloud the biblical texts, and so it had long been indigenized as part of the religious vocabulary available to Greek-speaking Christian Jews.”

<sup>29</sup> Gathercole, 180.

<sup>30</sup> James F. McGrath, “On Hearing (Rather Than Reading) Intertextual Echoes: Christology and Monotheistic Scriptures in an Oral Context,” *Biblical Theology Bulletin* 43, no. 2 (April 30, 2013): 74-80. Accessed March 15, 2016.

<sup>31</sup> Maurice Casey, “Lord Jesus Christ: A Response to Professor Hurtado,” *Journal for the Study of the New Testament* 27, no. 1 (September 2004): 83-96. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>32</sup> Larry W. Hurtado, “First-Century Jewish Monotheism,” *Journal for the Study of the New Testament* 71 (September 1998): 3-26, p. 10, Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>33</sup> Bauckham, 174-6.

<sup>34</sup> *Ibid.*, 27. Bauckham’s translation

<sup>35</sup> Simon J. Gathercole, “Paul’s Christology,” In *The Blackwell Companion to Paul*, edited by Stephen Westerholm, 172-87, (Oxford: Wiley-Blackwell Publishing, 2011), 179.

<sup>36</sup> James F. McGrath, “On Hearing (Rather Than Reading) Intertextual Echoes: Christology and Monotheistic Scriptures in an Oral Context,” *Biblical Theology Bulletin* 43, no. 2 (April 30, 2013): 74-80. Accessed March 15, 2016. For their arguments see their non-academic books in N.T. Wright, *Paul: In Fresh Perspective* (Minneapolis: Fortress Press, 2009), 91-4; see also Bauckham, 182-232.

<sup>37</sup> Francis Watson, “The Triune Divine Identity: Reflections On Pauline God-Language, in Disagreement With J.D.G. Dunn,” *Journal for the Study of the New Testament* 23, no. 80 (April 2002): 99-124. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>38</sup> James F. McGrath, “On Hearing (Rather Than Reading) Intertextual Echoes: Christology and Monotheistic Scriptures in an Oral Context,” *Biblical Theology Bulletin* 43, no. 2 (April 30, 2013): 74-80. Accessed March 15, 2016.

<sup>39</sup> .T. Wright, *Paul: In Fresh Perspective* (Minneapolis: Fortress Press, 2009), 91.

<sup>40</sup> *Ibid.*, 91-4; see also Bauckham, 92.

called Jesus *Kyrios* when discussing the God of Israel, placing Jesus on the level of God, thus “Jesus is *Kyrios*” implies that Jesus is divine. Dunn, McGrath and Casey think that later Christians believed in a divine Jesus, but it is possible that they got this idea from Paul or other early Christians.

#### 4d. 1 Corinthians 15:24-28

The great New Testament scholar Raymond Brown claimed that 1 Corinthians 15:24-28 was the only passage in the New Testament that would cause difficulty for a fully divine portrait of Jesus<sup>41</sup>. It is as follows:

‘Then comes the end, when he delivers the kingdom to God the Father after destroying every rule and every authority and power. For he must reign until he has put all his enemies under his feet. The last enemy to be destroyed is death. For “God has put all things in subjection under his feet.” But when it says, “all things are put in subjection,” it is plain that he is excepted who put all things in subjection under him. When all things are subjected to him, then the Son himself will also be subjected to him who put all things in subjection under him, that God may be all in all.’

However, the associations of “subordination” loss weight when it is noted that Paul is likely alluding to Psalm 110:1b, “The Lord said to my lord, “Sit at my right hand, until I put your enemies under your feet.”” and Psalm 8:6b, “You [the LORD] have put all things under his feet[.]” It is important to state that, “Pauline theology uniformly attributes the destruction of God’s enemies to God alone.”<sup>42</sup> So there is a subtle and complex mutual symmetry, the Son subjects all under him, a God act, “after which he surrenders that sovereignty back to God. There is an *identity* between God and Christ *and* an irreducible *distinction*.”<sup>43</sup> Thus this Pauline passage does not contradict conclusion of the above passages, but rather makes one note the relationship within the identity of the one God of Israel. The evidence warrants my hypothesis that the earliest sources of Christianity claimed that Jesus was divine by placing him within the identity of the one true God of Israel. McGrath wanted more emphasis

and clarification from Paul on this point,<sup>44</sup> but if this point is universally agreed upon in the early church, why does Paul need to explain it in full?

#### 5. Paul and other early Christians.

This brings me to the final consideration of the argument that Christians considered Jesus divine. A similar argument was given by Larry Hurtado in his book, *Lord Jesus Christ*, but the researcher of this paper thought of it was well (though hardly as long as Hurtado). Although Paul believed in a divine Jesus, is it possible that his theology of the “Lord Jesus” was an anomaly within early Christianity? It seems that despite some outliers, many scholars think that Paul was well acquainted with Judean Christianity. He claimed to have unanimous agreement with Peter and James on the facts that he had ‘received’ (see 1 Corinthians 15:3-11) and, “his autobiographical account in Galatians 1-2 indicates that he was particularly concerned to keep good relations with Jerusalem Christian leaders (2:2), and he names here the key figures of that day; Cephas (Peter), James [“the Lord’s brother,” 1:19], and John[.]”<sup>45</sup> Dunn has noted that often Paul mentions the Jerusalem church as “the saints who are in Jerusalem [see Romans 15:26]”<sup>46</sup> while Hurtado has noted that Paul devoted a lot of energy to get a large financial donation to the Jerusalem church during a time of famine<sup>47</sup>.

Despite this, there were differences between “Pauline Christianity” and some forms of “Jewish Christianity.” Many Jewish Christians, for example, believed that Gentile converts needed to be circumcised according to the custom of Moses, as well as follow other observances of the Torah, in order to truly participate as one of God’s covenant people (see Acts 15:1).<sup>48</sup> Paul reacted to this with anger, and the conflict got to be so serious that a “summit meeting” was called by the leaders of the Jerusalem church to settle the dispute, ruling in favor of Paul, that circumcision was not required for Gentile proselytes (see Acts 15). Hurtado (and myself) have argued that matters on Jesus were not disputed<sup>49</sup>. Indeed, although divisions from other theological disputes arise in early Christianity, none of them concern Jesus-worship. If Jewish Christians from Jerusalem were concerned about Paul’s Gentile converts dietary habits and Torah observance, would they not have been

<sup>41</sup> Wesley Hill, *Paul and the Trinity: Persons, Relations, and the Pauline Letters* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2015), 121.

<sup>42</sup> *Ibid*, 125.

<sup>43</sup> Hill, 134.

<sup>44</sup> James F. McGrath, “On Hearing (Rather Than Reading) Intertextual Echoes: Christology and Monotheistic Scriptures in an Oral Context,”

*Biblical Theology Bulletin* 43, no. 2 (April 30, 2013): 74-80. Accessed March 15, 2016.

<sup>45</sup> Larry Hurtado, *Lord Jesus Christ: Devotion to Jesus in Earliest Christianity* (Grand Rapids, MI: William B. Eerdmans Publishing Company, 2003), 157.

<sup>46</sup> Dunn, 708.

<sup>47</sup> Hurtado, *Lord Jesus Christ*, 159.

<sup>48</sup> *Ibid*, 161.

<sup>49</sup> *Ibid*, 165.

exasperated with their devotional practices had they not already been in agreement?<sup>50</sup> Again, although there were differences within early

Christianity, “we have no basis in Paul’s letters for thinking that these differences extended to major points about Christ-devotion”<sup>51</sup> and it can also be argued that other Christian literature contains evidence of Christ-devotion in earliest Christianity (see Acts 2:14-39; Mark 1:3)<sup>52</sup>. The early church seems to be unified in their regard of Jesus of Nazareth as divine within their monotheistic faith.

## 6. Against Praxeas<sup>53</sup> (and Hurtado)

While the purpose of this paper is to argue that the early Christians viewed Jesus as divine, at this point it is pertinent to dispel two misunderstandings about the conclusion. The first is that Jesus was considered divine by the early Christians only as one manifestation of the one person within God, like one mask put on by the same person. But by reflecting just on the passages above, it is clear that there is a relationship between persons with the one God of Israel, simply by considering the interaction between Jesus and God the Father (especially in Philippians 2:6-11 and 1 Corinthians 15:24-28). The second misunderstanding is that the number of persons within the divine identity is limited to just Jesus and God the Father. Hurtado is fond of using the word “binitarian” to describe the early Christian view of God.<sup>54</sup> But as Wesley Hill pointed out, “The “binitarian descriptor implies (or overtly asserts) that the Spirit is not essential to the story of God and Jesus’ identities.”<sup>55</sup> Indeed, work from Francis Watson<sup>56</sup> and Matthew Bates<sup>57</sup> has argued that Christian documents when discussing God contain a matrix of a tri-personal being.

## References

Bates, Matthew W. *The Birth of the Trinity: Jesus, God, and Spirit in New Testament and Early Christian Interpretations of the Old Testament*. Oxford: Oxford University Press, 2015.

Bauckham, Richard. *Jesus and the God of Israel: God Crucified and Other Studies on the New Testament's Christology of Divine Identity*. Grand Rapids, MI: William B. Eerdmans Publishing Company, 2008.

Casey, Maurice. “Lord Jesus Christ: A Response to Professor Hurtado.” *Journal for the Study of the New Testament* 27, no. 1 (September 2004): 83-96. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.

<sup>50</sup> Ibid, 167. “The lack of any such response [from Paul] can only mean that there were no challenges to the exalted status of Jesus asserted in Paul’s gospel or to the devotional practices by which Jesus was revered in Paul’s churches.”

<sup>51</sup> Ibid.

<sup>52</sup> For more examples, see Bauckham, 219-21.

<sup>53</sup> In reference to the work by Tertullian (c.160-220).

## 7. Significance and conclusion

The hope is that this study showed that the idea of the divinity of Jesus was presented in a uniquely Jewish way. This conclusion could not have been reached if the cultural and ideological context of Paul was not examined and established. Therefore the project of this essay to properly portray Paul’s thought was successful. Comprehending the context of a person is not just a lesson to be learned and utilized by historians, it is a practical way to better understand others who do not share that same culture or ideological background as ourselves. Especially in a country with growing plurality, we would do well to try and learn the contexts of those we encounter.

It was shown that the earliest evidence from Christian documents give a divine picture of Jesus within the framework of Jewish monotheism. Paul is the prime example of this, and while there is a significant debate about this, there is an increasing number of scholars that are agreeing with the thesis of this paper. Paul, who seems to have no opposition in his view of Jesus from other Christians, presents Jesus as “Lord” while referring to the God of Israel, maintaining his monotheism, yet proclaiming something radically different from the beliefs of non-Christian Jews. What Paul and other early Christians believed concerning Jesus’ divinity has an answer, but the next step in research brings about another question: why did they believe this? The why question seems to be a more perplexing question. Did the idea come from Jesus of Nazareth himself, were the religious experiences of the early Christians enough to spur on this belief? Answering this “why” question could be part of the solution to the problem of the origins of Christianity.

Drane, John W. “Paul.” In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan, New York: Oxford University Press, 1993.

Dunn, James D. G. *The Theology of Paul the Apostle*. Grand Rapids, MI: William B. Eerdmans Publishing Company, 2006.

Gathercole, Simon J. “Paul’s Christology.” In *The Blackwell Companion to Paul*, edited by Stephen Westerholm, 172-87. Oxford: Wiley-Blackwell Publishing, 2011.

Haacker, Klaus. “Paul’s life.” In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn, Cambridge, U.K.: Cambridge University Press, 2003.

<sup>54</sup> Hurtado, *Lord Jesus Christ*, 50, 64

<sup>55</sup> Hill, 165.

<sup>56</sup> Watson, 119-123.

<sup>57</sup> Matthew W. Bates, *The Birth of the Trinity: Jesus, God, and Spirit in New Testament and Early Christian Interpretations of the Old Testament*, (Oxford: Oxford University Press, 2015).

- Halpern, Baruch. "Monotheism." In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan. New York: Oxford University Press, 1993.
- Hawthorne, Gerald F. "Philippians, The Letter of Paul to the." In *The Oxford Companion to the Bible*, edited by Bruce M. Metzger and Michael D. Coogan. New York: Oxford University Press, 1993.
- Hill, Wesley. *Paul and the Trinity: Persons, Relations, and the Pauline Letters*. Grand Rapids: William B. Eerdmans Publishing Company, 2015.
- Hurtado, Larry W. "First-Century Jewish Monotheism." *Journal for the Study of the New Testament* 71 (September 1998): 3-26. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.
- . *Lord Jesus Christ: Devotion to Jesus in Earliest Christianity*. Grand Rapids, MI: William B. Eerdmans Publishing Company, 2003.
- . "Paul's christology." In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn, Cambridge, U.K.: Cambridge University Press, 2003.
- Kazen, Thomas. "The Christology of Early Christian Practice." *Journal Of Biblical Literature* 127, no. 3 (2008): 591-614. Academic Search Premier, EBSCOhost. Accessed February 15, 2016.
- McGrath, James F. "On Hearing (Rather Than Reading) Intertextual Echoes: Christology and Monotheistic Scriptures in an Oral Context." *Biblical Theology Bulletin* 43, no. 2 (April 30, 2013): 74-80. Accessed March 15, 2016.
- Rhee, Victor. "The Role of Chiasm for Understanding Christology in Hebrews 1:1-14." *Journal Of Biblical Literature* 131, no. 2 (2012): 341-62. Academic Search Premier, EBSCOhost. Accessed February 15, 2016.
- Segal, Alan F. "Paul's Jewish presuppositions" In *The Cambridge Companion to St. Paul*, edited by James D. G. Dunn, Cambridge, U.K.: Cambridge University Press, 2003.
- . *Paul the Convert: The Apostolate and Apostasy of Saul the Pharisee*. New Haven: Yale University Press, 1990.
- Watson, Francis. "The Triune Divine Identity: Reflections On Pauline God-Language, in Disagreement With J.D.G. Dunn." *Journal for the Study of the New Testament* 23, no. 80 (April 2002): 99-124. Academic Search Premier, EBSCOhost. Accessed March 14, 2016.
- Wright, N. T. *Paul: In Fresh Perspective*. Minneapolis: Fortress Press, 2009.
- . *The New Testament and the People of God*. Minneapolis: Fortress Press, 1992.

## GLOSSARY

- Apostolic Fathers- A category used to designate the earliest extant Christian writings outside the New Testament.
- Decalogue- A Greek phrase for the Ten Commandments, found in Exodus 20:2-17.
- Henotheism- The belief that worships one god while allowing for the existence of other gods.
- Monotheism- There are several kinds of monotheisms. During the first century, pagan monotheism was prevalent; the belief in one head god who made everything while allowing for lower gods to exist (or that god manifested himself differently to other people). Jewish monotheism during this time was exclusive, it believed in one creator God and no other, who chose the nation of Israel for his purposes.
- Pauline Christianity- For the purposes of this paper, it will mean the sect of early Christianity that followed the teachings of Paul, namely, that Gentile converts did not need to observe dietary or ceremonial rules of the Torah to obtain salvation.
- Pharisees- A sect of Judaism that believed oral and written teaching alongside the "five books of Moses" (Genesis, Exodus, Leviticus, Numbers, Deuteronomy) and the resurrection of the dead, opposed to the Sadducees, a group who rejected both of these beliefs.
- Second Temple period- A period in Jewish history from about 530 BC to 70 AD.
- Septuagint (LXX)- A Greek translation of the Old Testament.
- Shema- A prayer recited daily by devout Jews, found within Deuteronomy 6:4-9.
- Torah- "Law," for the purposes of section 5, the instructions found in the "five books of Moses."
- Undisputed Pauline letters- Letters by Paul recognized by most, if not all, scholars as authentic.
- Unitarian- A term for the belief that god is one entity (there are no other persons in one being).

# The rise of eSports: A new audience model and a new medium?

Neal Southern\*

B.A. Candidate, Department of Mathematics, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 25 April, 2017; accepted 19 July 2017

---

## Abstract

Electronic sports, or eSports, are competitive events that involve the use of computers and online video games to compare the skills and intelligence of the people who play. It has been increasing in popularity over the coming years, having its own audience following that is similar to that of traditional sports such as football and basketball. The model used to capture the audience's attention in eSports follows that of an experience economy, which is the idea that the companies who sponsor the events promise to give the viewers a unique experience that will allow them to escape from the throes of everyday life. Through research into various studies looking into the audiences of both eSports and traditional sports, a comparison is made between the two, showing that they follow similar models to reach their audience. The medium of broadcast and communication is different; traditional sports exist in the world of television, while eSports are just starting to make their way onto TV networks, currently relying more on live streaming services such as YouTube and Twitch to broadcast to their viewers. This new comparison suggests that eSports have taken the methods of attracting audiences from traditional sports and adapted it to fit livestream broadcasting. This shows that the method of promising an experience to consumers is a moldable method to attracting an audience.

*Keywords:* esports, video games, experience economy, audience

---

## Introduction

In this new technological age, the world has moved more towards using the Internet as a medium for a variety of purposes. From finding information to setting up businesses, the Internet has become a part of everyday life for many people. This also comes to affect entertainment, giving rise to a new way to broadcast events, and with this ability, the Internet allows entrepreneurs and companies to reach millions of viewers. One of the largest growing forms of entertainment are eSports.

eSports, short for electronic sports, are competition events based around online videos games. Individuals or teams of players come together in tournaments of various scales in order to compete and find out who is the best in skill, teamwork, and strategy, of a game franchise. A scientific definition of eSports is an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies (Wagner). Meanwhile, sports are defined as an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment. In comparing these two definitions, sports are physically exerting and for the purpose of entertainment, while eSports are a subset of sports that focus on information and communication technologies. The entertainment aspects of eSports follows a similar

audience model as that of sports, and uses a new medium to reach its audience.

## The eSports audience

eSports for various games have amassed huge followings, with viewership in the millions for online games such as Riot Games' *League of Legends* and Valve's *Counter-Strike: Global Offensive (CS:GO)*. In 2015, the *League of Legends* World Championship had an average concurrent viewership of 4.2 million, with the finals reaching a peak viewership of 14 million ([www.lolSports.com/en\\_US/articles/worlds-2015-viewership](http://www.lolSports.com/en_US/articles/worlds-2015-viewership)). Not all forms of eSports necessarily have viewer numbers reaching such high levels, but each game has its own audience following it, and looking at a large scale case such as *League of Legends* gives the greatest amount of information regarding the practices of successful eSports franchises that accrue large audience bases, on both a national scale as well as on the global scene. In fact, a recent announcement stated that eSports would be coming to the Asian Games, the second largest multi-sport event in the world (Brautigam, 2017). Through an experience economy and online streaming mediums, eSports have built an audience fan base that has been rising over the years.

According to Yuri Seo (2013), eSports have progressed to an economic model based on consumer

---

\* Corresponding author. Email: [nsouthern@csustan.edu](mailto:nsouthern@csustan.edu)

experiences. Seo argues that Pine and Gilmore's (1999) experience economy is what runs the marketing landscape of eSports. This economic model focuses on giving consumers an experience of memorable events as the commodity that is traded for money, and Seo explains that eSport consumers partake in this economic model. Through this view, the eSports spectator also fits into this experiential economy, primarily in the esthetic, escapist and entertainment categories.

In the esthetic category, in which the consumer becomes immersed in a performance, the spectator of eSports participates by attending tournaments physically and watching online streams, which produce ad revenue for the tournament hosts. eSport tournaments typically involve a very brightly lit stage and a large screen on which audience members can watch how well the in-game avatars of the players are performing. The games themselves are built with spectacular environments and colors with CG graphics, which add to the esthetic enjoyment of the audience member. This allows audience members to fully immerse themselves in the game-scape of the eSport tournament they are viewing, so it follows that viewing eSports fulfills a sense of escapism.

The escapist experience is categorized by active participation and immersion to the point that nothing else seems to matter (Seo 2013). Escapism is commonly related to video games, as it is considered a cause of video game addiction (Beranuy, Carbonell, & Griffiths 2012). With this in mind, the spectator can also fall into an escapist sense of reality in viewing eSport tournaments, and they fully immerse themselves in watching the player-avatar's every move to see what will cause a change to the outcome of the match. In watching the 2016 *League of Legends* World Championship, just through an online stream, the crowd is loud and engaged in every play the opposing teams make, drowning out the commentators of the match. This escapism plays a large part in what draws consumers to watch eSport events.

The final category of the experience economy that applies to the spectators of eSports is the entertainment aspect, where consumers take on a much more passive role in participation, and the connection of the performance is more absorption than immersion (Seo 2013). Seo states that in South Korea, there are a number of television channels established specifically for the purpose of broadcasting eSport events to cater to the young adult population, which is the predominant demographic that watches eSports. Outside of South Korea, viewers watch eSport events through online medias, such as Twitch and YouTube, which offer streaming services and data storage for recordings of the eSport tournaments. This entertainment aspect of eSports that allow for passive viewers contributes to its success, as the target demographic of eSports enjoy being able to watch and be a part of an exciting event without needing to participate actively.

Upon mention of online mediums, Twitch and YouTube come immediately to mind, as they are highly notable sources for broadcasting eSport events, with both being used in livestreaming games such as *League of Legends* and Blizzard Games' *Overwatch*, both of which are commonly the top two games being viewed on Twitch. These two sites offer streaming and video services that allow eSport tournaments to broadcast their events online to millions of potential viewers, and it is free for anyone to watch them through these services. This allows for eSports to reach a very large range of consumers across the world through the use of the internet, and as such contributes greatly to the viewer base, as accessing broadcasts of tournaments is a simple task with just an Internet connection. Twitch specifically has been credited with raising the number of players and viewers of various online games and eSports, representing both the present and future of gaming (Burroughs and Rama, 2015).

A crucial aspect of the streaming services offered through the Internet is that they allow the players, especially the professional players, of eSports to have a means to communicate with fans, as these streaming services also have live chat rooms that the players can use to communicate with those viewing. This factor allows for a deeper connection between spectators of eSports and the professional players that play the games, which builds a greater sense of community and achievement within eSport communities (Hamari and Sjöblom, 2017). This connection between viewer and player helps keep the viewers that start following specific teams or players.

### **The sports audience**

Sports have had large audience followings for years, with research having been done that explains what draws fans to watch sporting events. One aspect of sports that brings in viewers is the existence of fantasy sport leagues, in which people can pick out specific players to build their own fantasy team that gains points based on how well each individual player performs during the week on their actual teams (Billings & Ruibley). Also, Raney (2006) outlined three main categories that drive sports fans to spectate: emotional, cognitive, and behavioral/social. Within the emotional category exists four subcategories: entertainment, eustress, self-esteem, and escape. (Raney) The second area, cognitive motives, includes learning and aesthetics. Finally, there are behavioral and social motivations for sports fans which include release, companionship, group affiliation, family, and economics.

Looking at Raney's discussion of the first group of motivations, the emotional motivations. First, there is the entertainment factor. Sports spectators are seeking to be entertained; to witness a fun and exciting event. Through this desire, sports fans become socialized, forming allegiances to specific teams for various reasons such as



geography or team colors (Raney). This allegiance to a team makes the spectator feel thrilled at their team's success and saddened by their failures (Raney). Nevertheless, the feeling that an audience member gets from watching their team win or lose is what gives them the entertainment they want.

The second motivation under the emotional category is eustress. Eustress is defined as moderate or normal stress that is interpreted as beneficial by the person who experiences it. Raney applies this to the feeling that a spectator experiences when they witness a victory. The greater the stress of the victory, the higher the eustress an audience member feels (Raney). Eustress is also experienced in the level of violence that occurs during a sports game, with higher levels of violence being rated higher by spectators (Raney). Both of these situations lead to increased arousal and excitement for the viewers (Raney). Following eustress, the next motivation is self-esteem, which follows almost immediately. Self-esteem builds for spectators when their team is doing well, and may drop some if their team loses (Raney).

The last motivation under the category of emotion is escapism. The previous three focused more on the feelings of the audience members in relation to their favorite teams or player; however escapism relates to the spectator uniquely. Raney argues that due to ever increasing stresses in our times, a person's desire to watch something unfold without needing to take part themselves becomes greater. Watching sports gives a spectator relief from their own worries (Raney).

The second category of motivations discussed by Raney are the cognitive motivations; the motivations that build mental development and learning. In fact, learning is the first of these. A spectator of sports is seeking to learn about the players and the teams in each instance they view the game, and with this knowledge they build conversations regarding the sports (Raney). The knowledge of the sport and its players gives the spectators a basis with which to discuss strategy, reasons for a team's success, and other topics, further building the social circle (Raney). Audience members may also be seeking to learn from professional players how to better play the sport themselves, which also applies to the learning motivation (Raney).

Next is the aesthetic motivation, in which audience members find beauty in the intricacies of the sports they are watching. Aesthetic appreciation can arise from the style of play, improvisations that prove fruitful, and grace found in particular players of sport (Raney). It is these kinds of beauty in a sport that also motivate a person to watch a particular sport.

The final category of motivations are the behavioral and social motivations. The first of these is release. Through watching sporting events, spectators feel joy and excitement, and the drama of a sports competition gives them an opportunity to release their emotions (Raney). This opportunity gives a reason for an individual to keep coming

back to the sport that allows them to release their pent-up emotions (Raney).

Following release, the next two motivations coincide with each other. Companionship and group affiliation go hand-in-hand. Sports viewing gives people an opportunity to interact on a common ground, allowing them to talk amongst others to build a feeling of camaraderie and companionship (Raney). Beyond the base companionship comes a group affiliation, as the common ground of viewing a sport between two people can extend to three, four, up to any number of people. This feeling of being part of a larger group gives a sports viewer further incentive to continue watching sports, and increases with a larger scale sports event, such as the Olympics (Raney).

Another motivation under the behavioral and social category is family. Family plays a role in motivating an individual to watch sports, as the viewing of sports can be a family pastime. Large sport events become a reason for family to come together and watch the big game, such as the Super Bowl in football (Raney). It is a common practice for family parties and dinners to occur around the Super Bowl each year, and has become a very large part of American culture in particular.

Raney's last motivation to view sports is the economic motivation. Some individuals chose to view sports due to financial incentive, primarily through gambling. These spectators bet large sums of money on the team they think is most likely to win, and have a chance to get away with a large payout (Raney). But there is also a risk in this, as, if their team loses, then the money that was bet is lost. Raney views those who focus only on the economic motivation to watch sports as untrue sport fans.

Overall, these motivations are the main factors, as determined by Raney, that dictate the audiences of traditional sports.

## Comparing the audiences

eSport audiences are built up based on Seo's experience economy, while traditional sports follow the emotional, cognitive, and behavioral motivations of Raney. First, the esthetic category of the experience economy relates heavily to Raney's aesthetic motivation. In both eSports and traditional sports, the stylistic and beauty of the games that are played are key roles in maintaining their respective audiences. From the fantastic stages of *League of Legends* World Championship Stage, to a well-executed made by a basketball team, there are elements in every sport that gives its audience something to look at in awe.

Second, escapism is prominent in both eSports and traditional sports audiences. This can likely be attributed to conditions in the world today, where people seek to get away from the longer work weeks, worrying about politics, and the many stressors of everyday life. People are looking for something to distract them from the woes of the world.

The last similarity is found in the fact that both eSports and traditional sports are a form of entertainment. Audiences watch these competitions for the purpose of seeing an eventful phenomena that they can enjoy and feel excited to be witnessing.

Overall, these three similar motivations between eSports and traditional sports create the primary link that makes the audience models almost the same. Both eSports and traditional sports experience gambling, and the communities that form around teams in both do so for the same reasons. Thus, eSports and traditional sports do follow a very similar audience model.

However, there are still differences, and these are primary in the mediums used to broadcast the events. eSports' primary form of broadcasting is through the internet, where millions can access the event from anywhere. Meanwhile, traditional sports still dominate television, and also make use of the radio, a sometimes forgotten means of communication in today's times. eSports are making their way onto television broadcasting, with a recent CS:GO championship appearing on TBS, but for the most part eSports will likely remain broadcasted online, as while the audiences are large, there isn't currently a high enough demand to greatly increase its presence on television.

## References

- Beranuy, Marta, Xavier Carbonell, and Mark D. Griffiths. "A Qualitative Analysis of Online Gaming Addicts in Treatment." *International Journal of Mental Health and Addiction* 11, no. 2 (2012): 149-61. doi:10.1007/s11469-012-9405-2.
- Billings, Andrew C., and Brody J. Ruihley. "Why We Watch, Why We Play: The Relationship Between Fantasy Sport and Fanship Motivations." *Mass Communication and Society* 16, no. 1 (2013): 5-25. doi:10.1080/15205436.2011.635260.
- Brautigam, Thiemo. "ESports comes to the second largest multi-sports event in the world." Dot ESports. April 17, 2017. Accessed April 17, 2017. <https://doteSports.com/business/eSports-asian-games-14151>.
- Burroughs, Benjamin, and Paul Rama. 2015. "The eSports Trojan Horse: Twitch and Streaming Futures." *Journal Of Virtual Worlds Research* 8, no. 2: 1-5. *Communication & Mass Media Complete*, EBSCOhost (accessed December 19, 2016).
- Hamari, J., & Sjöblom, M. (2017). What is eSports and why do people watch it? Internet research, 27(2). DOI: 10.1108/IntR-04-2016-0085
- Hollist, Katherine E. "TIME TO BE GROWN-UPS ABOUT VIDEO GAMING: THE RISING ESPORTS INDUSTRY AND THE NEED FOR REGULATION." *Arizona Law Review* 57, no. 3 (2015): 823-47.
- Lee, Donghun, and Linda Schoenstedt. 2012. Comparison of ESports and Traditional Sports Consumption Motives. *ICHPER-SD Journal of Research*. 6, no. 2: 39-SD Journal of Research, 2011, Vol.6(2), p.39-44.
- "LoL eSports." LoL eSports. Accessed December 19, 2016. [http://www.loleSports.com/en\\_US/articles/worlds-2015-viewership](http://www.loleSports.com/en_US/articles/worlds-2015-viewership).
- Martončík, Marcel. "E-Sports: Playing just for fun or playing to satisfy life goals?" *Computers in Human Behavior* 48 (2015): 208-11. doi:10.1016/j.chb.2015.01.056.
- Pine, B.J., & Gilmore, J. H. (1999) *The Experience Economy: Work is theatre and every business is a stage*. Boston, MA: Harvard Business Press.
- Raney, Arthur A., and Jennings Bryant. *Handbook of sports and media*. Mahwah, NJ: L. Erlbaum Associates, 2006. Print.
- Seo, Yuri. "Electronic sports: A new marketing landscape of the experience economy." *Journal of Marketing Management* 29, no. 13-14 (2013): 1542-560. doi:10.1080/0267257x.2013.822906.
- "Professionalized consumption and identity transformations in the field of eSports." *Journal of Business Research* 69, no. 1 (2016): 264-72. doi:10.1016/j.jbusres.2015.07.039.
- Taylor, Nicholas Thiel. "Now you're playing with audience power: the work of watching games." *Critical Studies in Media Communication* 33, no. 4 (2016): 293-307. doi:10.1080/15295036.2016.1215481.
- Trepte, Sabine, Leonard Reinecke, and Keno Juechems. "The social side of gaming: How playing online computer games creates online and offline social support." *Computers in Human Behavior* 28, no. 3 (2012): 832-39. doi:10.1016/j.chb.2011.12.003.
- Wagner, Michael G. "On the Scientific Relevance of eSports." Proceedings of International Conference on Internet Computing & Conference on Computer Games Development, Las Vegas. January 2006. Accessed December 19. [https://www.researchgate.net/publication/220968200\\_On\\_the\\_Scientific\\_Relevance](https://www.researchgate.net/publication/220968200_On_the_Scientific_Relevance)

## Significance

It is important to compare sport audiences and eSport audiences to understand if the rising eSports phenomena is a new model of capturing an audience's attention or if it is just using a similar model to that of sports. This gives insight into how communication and technology play a role in how social communities form around eSports and how traditional social groups have formed around physical sporting events, and allows for a basis to make predictions regarding future phenomena that might give rise to large followings of consumers for the purpose of entertainment.

## Conclusion

The eSport phenomena has been on the rise for many years, and does not show signs of stopping. It attracts its audience with a similar model to that of generic sports, with the Internet as its broadcast medium instead of television and radio. In future analysis, it will be important to discover what possible effects this wide scale access of eSports will have on the younger generations, and what this means for future phenomena that might try and make use of the Internet and the sports audience model.

# Smartphones: The weight in our pockets

Mario Muniz\*

*B.A. Candidate, Department of Computer Sciences, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

The *Economist* states that in Great Britain 60% of teenagers and 37% of adults report that they feel that they are highly addicted to smartphones. Although these statistics are limited to one country, it reinforces the fact that smartphones are now seen as a necessity, rather than a technological luxury. Smartphones are making people feel obligated to constantly stay connected, whether for work purposes, personal communication, or as a gateway to popular social media platforms. Smartphones are contributing to one's ability to work and are even impacting the confidence of individuals who use these devices. But all of these benefits have their downsides, as shown by users who report that they are feeling trapped and addicted. Studies demonstrate that even the temporary removal of these devices can cause anxiety in their users. The tension that is caused by this separation indicates an unhealthy dependency on smartphones. This paper is a presentation of research done on current-day smartphone usage among young adults and on the traits of behavioral addiction. This research was done to find the causes of compulsive smartphone usage, and its correlation with behavioral addiction. Modern day smartphone usage patterns indicate that it has the significant potential to become a behavioral addiction. Based on this conclusion, several options are presented to help control behavioral addictions that center around smartphone usage.

*Keywords:* smartphones, technology, behavioural addiction, young adults

---

## Introduction

The smartphone has greatly changed the way we interact with our world, and is continuing to evolve as the technologies behind smartphones continue to improve. This device has been widely adopted by youth and young adults globally, and the smartphone is now seen as a necessity instead of a fun luxury. But how are smartphones being used in the present day, and how are they influencing the behaviors of the young adults who use them? How is that usage evolving? Smartphones are undeniably having an incredible influence. As that influence increases, so too does the control that these devices have over their users. Why is this important? Young people are becoming increasingly dependent on their smartphones. The pattern of smartphone usage and behaviors that this usage creates can spiral into smartphone addiction. Although some claim that large amounts of smartphone usage don't necessarily equate to an addiction, studies have shown that the patterns behind significant amounts of smartphone usage demonstrate suspicious traits. This includes anxiety caused by being separated from a smartphone and feelings of stress that smartphones create in their users. These negative consequences of smartphone usage are exacerbated by the fact that young people use smartphones to meet innate needs for social interaction. Attempting to find the root causes of compulsive smartphone usage and acknowledging the power that smartphones can have

provides their users with an excellent foundation to reflect on the influence of smartphones in their lives. Additionally, it allows them to make lifestyle changes or choose healthier alternatives to meet their needs for social connectivity or information.

To understand the role that smartphones are playing in the lives of youth, the relevancy of smartphones will be investigated to establish if the potential addiction to these devices has significant relevance to youth. Following that is a discussion on behavioral addictions and what addictions actually are in an attempt to discern these patterns in smartphone usage. Next, common smartphone usage and behavior will be analyzed to determine if that usage indeed indicates addiction. Once the specifics of smartphone addiction have been established, the discussion will focus on how it is impacting youth and why they are developing these behaviors, and the discussion concludes with some of the consequences of these behaviors.

## The increasing relevance of smartphones

Smartphones are starting to be seen as necessary technology. They are mandatory for participating in certain social networks and their small form-factor provides a convenient, portable, and instant connection to the World Wide Web. According to Kang and Jung in their article that compares smartphone usage in the United States and Korea,

---

\* Corresponding author. Email: [mmuniz4@csustan.edu](mailto:mmuniz4@csustan.edu)

“Mobile communication has become embedded in a user’s daily communicative practices...” and “the utility of the smartphone has been evolving rapidly by being used in every sector of individuals’ lives.” (Kang and Jung 2014, 376) Smartphones are also becoming increasingly relevant in a wide variety of fields. The article mentions marketing, business, safety, and even medical fields as places where the smartphone is becoming an important player. But although these usage contexts are an important factor in their spread, their usage isn’t simply limited to professional settings. The article also indicates that the smartphone is beginning to fulfill basic needs, such as “learning, individual capability, safety, and human relationships.” Smartphones “allow users to experience self-actualization (e.g., confidence, capability) in an instant matter.” (Kang and Jung 2014, 377) Youth and young adults are now commonly using smartphones as a tool to fulfill real social needs that arise as they live their lives. Thus it becomes difficult to dismiss the fact that smartphones are becoming a necessity rather than a luxury. I argue that this usage of smartphones is a significant factor for its widespread adoption among youth. Such a widespread adoption of the smartphone as well as the high importance that it is being given creates a very slippery slope into problematic behaviors.

### **Addiction: Not just a bad habit**

A study by British telecommunications regulator Ofcom claims that “60% of teenagers who use smartphones describe themselves as “highly addicted” to their devices.” (Schumpeter 2012, 80) This indicates that even smartphone users themselves feel that they are growing unhealthily dependent on their smartphones. But what exactly constitutes an addiction, and specifically an addiction to something that isn’t a substance like nicotine? This is referred to as a behavioral addiction, which shares many characteristics with substance addictions. But what is the difference between a simple routine and a behavioral addiction? The key to it being a harmful addiction lies in the nature of the urge behind the action and the consequences of not being able to complete the action. An individual can be said to be unhealthily dependent on something if they have “repeated urges to engage in a particular behavioral sequence that is counterproductive” that results in mounting tension until the “behavioral sequence” can be completed. Other characteristics may include “rapid but temporary switching off of the tension by completing the sequence”, which is referred to as a “quick fix”, the gradual return of the urges, and external cues or triggers. (Marks, 1990, 1391) This behavior is widespread among youth, especially in places where it isn’t appropriate.

In the case of smartphone addiction, the action is using the smartphone, and the inability to use the smartphone at

a given moment is what would trigger the consequences. In the statistic mentioned before, 60% of teenagers considered themselves addicted to their smartphones. Obviously, the majority of these individuals aren’t familiar with the characteristics of behavioral addictions, but the concept of an addiction involving a compulsion to perform a task and the associated tension with not completing the task is an intuitive association that can be made with the term “addiction”. Therefore, the figure of 60% may very well accurately represent the number of teenagers that may actually be addicted. Additionally, that figure only accounts for teenagers that reported themselves as addicted and doesn’t include those who may not even know that they are behavioral addicts.

### **The evidence: Is it addiction?**

The additional needs that smartphones can now meet do not necessarily indicate that they are making their users dependent on them. Rather, smartphones can be seen as positive tools to help meet social and practical needs in ways that would have been unimaginable during earlier time periods. Finding a link between high levels of smartphone usage and full-on behavioral addiction is an area that still requires testing and research. (Sapacz, Rockman, and Clark 2016, 155) However, much research has been done to study addictive behavior related to smartphones. In their own tests, Sapacz, Rockman, and Clark demonstrated that their subjects experienced anxiety when they had their smartphones in close physical proximity but were instructed not to use them. The anxiety that this creates is called “state anxiety”, and is considered to be a component of behavioral addiction. (Sapacz, Rockman, and Clark 2016, 158) The anxiety that this causes can be so overwhelming that some choose to use them even if they are prohibited from doing so, whether it be while driving a vehicle on the highway or using it in a social setting where using it is inappropriate. This can be seen specifically with youth at the dinner table, when in the middle of conversations, or during their lectures in their classes.

What does the anxiety caused by having a device within arm’s reach and not being able to use it have to do with addiction specifically? It must be recognized that because smartphones are so accessible, the potential to overuse them is much greater than something like a computer or a television. Their constant availability can “...lead to addiction in the form of frequent checking or habitual checking. (Jeong, Kim, Yum, Hwang 2016, 10) The removal of the ability to constantly check one’s smartphone and the anxiety that results from that is indicative that smartphones are forming addictions. Addiction is specified as being a “pathologic condition that one cannot tolerate without continuous administration of substances”, and then expanded to include behavioral

addictions, which includes the use of smartphones. (Jeong, Kim, Yum, Hwang 2016, 11) This information now provides an uncomfortable context to the anxiety caused by simply not being able to use a smartphone, showing that this is most likely caused by the formation of a behavioral addiction to checking and using these devices. Additionally, according to the same article, smartphone addiction can have significant consequences such as increased “depressive symptoms and substance use as well as decreased well-being”.

Because the smartphone is such a prevalent device, there are many differing opinions on how much power they actually have over their users. Smartphones are undeniably important devices that allow us to communicate with contacts during emergencies or access important information during urgent situations. In an article on the website “Digital Trends”, Dr. Mark Griffiths of Nottingham Trent University states that “just because something is very important in your life, and you carry it everywhere, and when you forget it, you feel like your left arm’s missing, that doesn’t mean you’re addicted.” The logic behind this statement is true: take cars, for example. They are used to get their users around, usually daily, and are largely depended on. Having a vehicle stolen or disabled can fundamentally cripple someone who relies on their car to get them to work. And yet, car users aren’t addicted to their cars, but rather largely dependent on them. The anxiety that comes out of losing a car is due to the actual consequences of being unable to use this tool. The major difference with smartphones is that their users will become anxious simply from not being able to use them temporarily. There was no pressing task that was being hindered in the tests done by Sapacz, Rockman, and Clark.

I’ll interject a personal anecdote to solidify this point: I have gone through both of the scenarios discussed above. My vehicle was stolen from the front of my house, and for several weeks I had no vehicle of my own to use. Additionally, later that year, I broke my foot and lost the ability to drive. The anxiety that was caused by not having a car wasn’t due to me not being able to use it. It was a result of having to be completely dependent on other drivers and vehicles, and created a loss of autonomy and independence that was deeply upsetting. And yet, when I got a new car or regained the ability to drive, I wasn’t suddenly relieved to be able to unlock my car and take it for a spin. Rather, I was overjoyed by the fact that I was once again fully autonomous. However, this story changes when discussing my smartphone usage. Recently, my smartphone manufacturer began a program for repairing faulty batteries for their line of phones. Taking it in for the repair resulted in a period of less than 24 hours where I didn’t have access to a smartphone. Although I was able to bear not being able to drive for an extended period of over a month, I found myself constantly reaching for my empty pocket and continuously being dismayed that I could not use my device. Having my smartphone returned to me felt

like being able to breathe again, which immediately made me think of Sapacz, Rockman, and Clark’s study. I had no missed calls, no missed appointments, no missed emails, and I was able to stay in contact with my loved ones through alternate means. Although this is just a personal anecdote, I completely disagree with Dr. Mark Griffiths, and cite my personal experiences as well as this study to make the claim that smartphones have more of a hold on us than simply being devices that are very important in our lives.

### **Smartphone addiction among youth**

Practically, what does an addiction to a smartphone look like, specifically in the case of youth? Is addiction caused by the convenience of the device, or are there deeper underlying causes? In a study publicized in the *Journal of Black Studies*, “the heavy use of smartphone and Facebook among African American college students” is investigated. (Lee 2014, 44) The study focuses on finding predictors of addiction to smartphones and provides excellent insight into what exactly lies behind the compulsion to use smartphones in American youth. It is important to distinguish between experimental data and predictors; although predictors may provide hints and insights into the roots behind smartphone addiction, they cannot be considered conclusive, but are compelling nonetheless. Their data suggested that “Social interaction anxiety was a significant predictor of smartphone... addiction.” (Lee 2014, 54) Also important to note is that in their study they found no significant correlation between youth that demonstrated “personality traits including extroversion, agreeableness, neuroticism, and conscientiousness.” (Lee 2014, 55) What this lack of correlation indicates is that a wide variety of youth can become addicted to smartphones and that becoming addicted isn’t limited to one small segment of youth with certain personality traits or characteristics. Another study conducted also suggests that “social stress positively influences addicted smartphone behavior.” (Van Deursen 2014, 417) “Smartphones offer a relatively safe environment where people do not have to communicate, socialize, or present themselves [physically].” (Van Deursen 2014, 417) These studies reveal that there is a complicated relationship between smartphone addiction and social pressures indicating that youth are more susceptible to growing addicted to their smartphones as they grow up and their social environments grow more complicated, mature, and stressful.

### **Instant gratification and dependency formation**

The very nature of smartphones and how they work also contributes in developing addictions. A majority of the immediate interactions that follow the unlocking of a

smartphone device can be interpreted as a “reward”: “Behaviors of both process and social oriented smartphone usage types function as a reward: winning games, unlocking new features, or receiving new notifications.” (Van Deursen 2014, 417) This results in repetitive smartphone usage being “rewarded” in the mind of the user and can result in addictive behaviors forming more easily. So smartphones offer a tantalizing way to get large rewards with little to no effort on the part of the user. A young adult that suffers from social stress and social interaction anxiety has a widely available tool available to them to reap instant rewards from their smartphone by utilizing them for instant and “riskless” social interactions with sometimes instant feedback from the device, further encouraging the behavior. This can easily transition into a dependency on the smartphone itself, and it follows that anxiety can build in an addicted user until they are able to “fix” it by unlocking and using their device. This is confirmed in a study that focuses on university students in China and relates smartphone usage and addiction to social capital. It states:

...Shy individuals are particularly apt to lose control of the time spent on smartphones, despite any negative effects their excessive use has already had on their productivity, and shy individuals also get increasingly anxious and feel lost if their smartphones are out of reception range or they have been unable to use the device for some time. (Bian and Leung 2015, 74)

Although addiction isn't limited to a small segment of youth with certain personality traits, Bian and Leung found that those individuals with shy tendencies rely on smartphones as a tool for having social interactions without the need for social cues. This can be extrapolated to include those who aren't as shy, as they may still benefit greatly from being able to have instantaneous social interaction that isn't limited by their physical location. This solidifies the fact that smartphones are now being used for more than just communication and are being used by youth to fulfill deep social needs. This also reveals that this behavior has characteristics of behavioral addiction as seen by the anxiety that is caused by periods of time in which the device cannot be used or accessed.

### **The consequences of smartphone addiction**

Behavioral addictions are characterized by repeated counterproductive behaviors. (Marks 1990, 1391) For example, Bian and Leung's study that was discussed before mentions that excessive smartphone usage can have a negative impact on productivity. This is confirmed in a study conducted by Samaha and Hawi on the consequences of smartphone addiction. One consequence with particular

significance for youth is the impact that a behavioral addiction to smartphone usage has on academic performance. Samaha and Hawi state that “several studies have found a negative association between cellphone use and academic performance.” (Samaha and Hawi 2016, 322) For youth, negatively impacted academic performance is a serious consequence as education and learning form a significant portion of their lives. If academic performance is impacted enough, addiction could seriously affect their future in a negative way.

Another significant negative effect that smartphones can have is the creation of “technostress”, which is defined as “stress caused by information and communication overload.” (Samaha and Hawi 2016, 322) The study demonstrated that “university students with a high risk of smartphone addiction experienced higher levels of perceived stress.” (Samaha and Hawi 2016, 324) Samaha and Hawi also demonstrated that those with higher levels of perceived stress were also more likely to develop smartphone addictions. Although the nature of a smartphone addiction involves instant gratification and reward from checking the device, the continuous cycle of checking a smartphone makes it into a counterproductive behavior that creates stress in the user.

A final consequence of smartphone addiction is the difficulty of actually “quitting”, or controlling excessive smartphone behavior once an addiction has formed. According to Marks, “Both behavioral and chemical addictions are easy enough to stop for a while. The real test is maintaining control for years until it becomes second nature.” (Marks 1990, 1392) This is the most serious consequence of all, as even if a smartphone user realizes that they are addicted, the nature of the behavioral addiction itself can hinder and even prevent the user from fully freeing themselves from their dependency. While the user struggles to free themselves, they must suffer through the other previously discussed consequences.

### **Strategies for controlling smartphone usage**

The very nature of behavioral addictions is that they are not easily treatable. They are very much comparable to a substance addiction, and much research is still being done in an attempt to discover ways to treat these behavioral addictions. (Tinsley, 2010) A study done on Chinese youths that are addicted to the Internet claims that parenting and a good level of self-control are key to preventing addiction. (Jeong, Se-Hoon, Hyoungjee Kim, Jung-Yoon Yum, and Yoori Hwang 2014) Although we may not know the full effects that increased smartphone usage is having, parents may wish to consider focusing on providing positive reinforcement to their children and direct them to other sources of social fulfillment that don't rely on smartphones. Additionally, raising children with greater senses of self-

control may help prevent them from becoming addicted to smartphones when they are eventually introduced to them.

There is no magic bullet to conquering compulsive smartphone usage. Smartphone addiction, as well as addiction to gambling, skin-picking, and other compulsive behaviors are still very mysterious, in the sense that what causes these behaviors and how they can be treated is still for the most part unknown. (Tinsley, 2010) However, I believe that understanding what constitutes an addiction is very important as it prompts users to monitor their own usage, and perhaps take measures to intentionally limit their smartphone usage. In the case of youth, it would be helpful to uninstall social media apps and instead rely on using a desktop computer to access social media. Ultimately, although attempting to rely less on smartphones themselves will aid in curbing excessive usage, behavioral addiction is something that may require specialized treatment. Just as with a substance addiction, if one feels that they are unable to control their own smartphone usage, seeking outside help is advised.

## References

- Bian, Mengwei and Leung, Louis. "Linking Loneliness, Shyness, Smartphone Addiction Symptoms, and Patterns of Smartphone use to Social Capital." *Social Science Computer Review* 33, no. 1 (02, 2015): 61-79.
- Hill, Simon. "Is Smartphone Addiction Real? We Ask the Experts." *Digital Trends*. 2015. Accessed December 12, 2016. <http://www.digitaltrends.com/mobile/is-smartphone-addiction-real/>.
- Jeong, Se-Hoon, Hyoungjee Kim, Jung-Yoon Yum, and Yoori Hwang. "What Type of Content Are Smartphone Users Addicted To?: SNS vs. Games." *Computers in Human Behavior* 54 (2016): 10-17.
- Kang, Seok, and Jaemin Jung. "Mobile Communication for Human Needs: A Comparison of Smartphone Use between the US and Korea." *Computers in Human Behavior* 35 (2014): 376-87.
- Lee, E. B. "Too Much Information: Heavy Smartphone and Facebook Utilization by African American Young Adults." *Journal of Black Studies* 46, no. 1 (2014): 44-61.
- Li, Caina, Jianning Dang, Xiaoling Zhang, Qianqian Zhang, and Jingjing Guo. "Internet Addiction among Chinese Adolescents: The Effect of Parental Behavior and Self-control." *Computers in Human Behavior* 41 (2014): 1-7. doi:10.1016/j.chb.2014.09.001.
- Marks, Isaac. "Behavioural (non-chemical) Addictions." *Addiction* 85, no. 11 (1990): 1389-394.
- Samaha, Maya and Hawi S., Nazir. "Relationships Among Smartphone Addiction, Stress, Academic Performance, and Satisfaction With Life." *Computers in Human Behavior* 57 (2016): 321-325
- Sapacz, M., G. Rockman, and J. Clark. "Are We Addicted to Our Cell Phones?" *Computers in Human Behavior* 57 (2016): 153-59.
- Sheldon, Pavica, and Bryant, Katherine. "Instagram: Motives for Its Use and Relationship to Narcissism and Contextual Age." *Computers in Human Behavior* 58 (2016): 89-97.
- "Slaves to the Smartphone; Schumpeter." *The Economist* (US), March 10, 2012.
- Tinsley, Joyce A. "Impulse Control Disorders." *The Journal of Clinical Psychiatry* 71, no. 03 (2010): 363. doi:10.4088/jcp.09bk05462whi.
- Van Deursen, Alexander. "Modeling Habitual and Addictive Smartphone Behavior: The Role of Smartphone Usage Types, Emotional Intelligence, Social Stress, Self-Regulation, Age, and Gender." *Computers in Human Behavior* 45, (April 2015): 411-420.

## Conclusion

Are youth that use smartphones the masters of their devices, or are they instead being mastered by the smartphone? There is a complex relationship between youth and their smartphones, as these devices are being used to meet social needs and moderate the social anxiety that is present throughout the teenage years. It has been demonstrated that a wide variety of personality types suffer from smartphone addiction and that there is growing awareness of this issue, even among the young users themselves. However, this isn't a hopeless spiral into an epidemic of addiction, but rather may be an interesting new aspect of growing up in a modern United States. As social anxiety and anxiety that arises with social interaction decreases with maturity, so too does the dependency on smartphones. So perhaps smartphones aren't masters as much as "social companions" that we grow out of. Regardless, care should be taken when using smartphones, and personal evaluation of how one uses their own smartphone is a useful exercise, as behavioral addictions do have their consequences and can be hard to escape.

# Extended copyright curtails creativity: How the *Copyright Term Extension Act* limits writers

Tatiana Olivera \*

B.A. Candidate, Department of English, California State University Stanislaus, 1 University Circle, Turlock, CA 95382

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

This research focuses on the *Copyright Term Extension Act* (CTEA) of 1998 and argues that the perpetual extension of the copyright term curtails creativity in that it withholds works from entering the public domain even though these works no longer benefit the creator. The *Eldred v. Ashcroft* (2003) court case is analyzed in regard to this problem. The conclusion of the court case maintains that the CTEA is constitutional, and Eldred lost his case. However, the researcher finds the arguments made in the court case significant in our understanding of the current standing of copyright law.

*Keywords:* copyright law, public domain, creativity, intellectual property

---

*Villains forbear—illustrious prince, let none  
Attempt th' ent'prize, reserv'd for me alone.*  
(Cervantes 891)

In the quote above, Cervantes tells readers to let “Don Quixote rest in the grave” and warns future authors not “to write with his coarse, awkward, ostrich quill, the deeds of my valiant night; a burden too heavy for his weak shoulders, and an undertaking too great for his frozen genius” (Cervantes 891). Ironically, many authors have interpreted this statement as a challenge and have written works of their own that imitate the tales of Don Quixote de la Mancha, such as *The Life and Adventures of Sir Lancelot Greaves*, *The Female Quixote*, *Arthur Mervyn*, *The Coquette*, and others. According to current copyright laws, *Don Quixote* is in the public domain, which, according to the Merriam-Webster dictionary, is “the realm embracing property rights that belong to the community at large, are unprotected by copyright or patent, and are subject to appropriation by anyone.” Therefore, *Don Quixote* is actually legally available to be copied and imitated. Whether Cervantes would have wanted this or not remains unanswered, but it can be argued that *Don Quixote* has inspired authors to create new works that borrow from this original text.

The problem at hand is that the current copyright law in the United States are hindering creativity because of its extension of terms due to the Sonny Bono Copyright Term Extension Act (CTEA). The CTEA serves to impede the freedom of speech granted by the Constitution’s First Amendment by creating a chilling effect that has muffled the mouths, or rather the “ostrich quills,” of many

prospective authors who wish to borrow from previous texts to create their own. I concur with the plaintiffs of the *Eldred v. Ashcroft* case, in which a complaint was brought to the Supreme Court stating that the CTEA is unconstitutional in regard to the Copyright Clause and the First Amendment. However, because the CTEA has already been ruled constitutional, I argue that the CTEA needs to be the final extension of copyright terms because old works should enter the public domain in order to allow authors the ability to create new works from them.

## Background of copyright law

Copyright law is a fickle creature with many shaded areas of gray. Even professionals in the field can get confused by copyright at times: “working within that realm [of copyright law] every day doesn’t mean it gets all that much easier. It’s intriguing . . . and exacting. And in fact, the further you delve into the area, the grayer it can appear” (qtd. in Dierking). What is clear is what copyright does and does not protect. According to a student media website, copyright is a property right that “protects literary works, sound recordings, works of art, musical compositions, computer programs and architectural works, provided that the work satisfies certain requirements” (“Student Media Guide” par. 12). The first requirement is that the work must be original and creative in such a way that it is not simply like a listing in a telephone book, but rather has shown some artistic value involved in the work’s creation. The second requirement is that the work must be “fixed in any tangible medium of expression,” meaning an idea is

\* Corresponding author. Email: [tolivera@csustan.edu](mailto:tolivera@csustan.edu)



implemented using paper, web, video format, etc. (“Student Media Guide” pars. 13-14).

What copyright does not protect are “[s]logans, titles, names, words and short phrases, instructions, lists of ingredients and familiar symbols of designs, [which] are generally ineligible for copyright because they lack the necessary originality and creativity necessary to distinguish them from ideas they represent” (“Student Media Guide” par. 15). So ideas and facts are not copyrightable, but the certain way of expression of those ideas and facts are copyrightable (“Student Media Guide” par. 16). For example, the character Mickey Mouse is copyrighted, so any work resembling Mickey Mouse in any way would be subject to copyright litigation from the Walt Disney Company. However, the idea of a cartoon mouse in general is not copyrighted and can be used freely. “Copyright only protects the execution of an idea but not the idea itself. So the character of Mickey Mouse, such as the personality traits as well as the physical characteristics such as the ears are copyrightable, but not the idea of the mouse...Jerry is a very different character from Mickey,” said Patent Attorney Steve Schlackman, referring to MGM’s Jerry Mouse from the cartoon *Tom and Jerry*.

Although the specifics of what copyright does and does not protect have been fairly solid throughout time, copyright terms have had a long and fluctuating history that Michael Birnhack, Assistant Professor at the University of Haifa, Israel, calls a “judicial ‘chain novel’ that has been in the writing for the past three decades,” a term coined by legal philosopher Ronald Dworkin (Birnhack par. 1; Reuters par. 1). According to the Student Press Law Center, before the CTEA, works were originally under copyright for as long as fifty years after the death of the owner, but the CTEA added twenty years retroactively so that it became seventy years after death of the owner, ninety-five years after publication, or one hundred twenty years from creation, whichever comes sooner. And as of 2016, “any work published before January 1, 1923...is now in the public domain” (“Student Media Guide” par. 37).

The Student Press Law Center also details a kind of loophole to copyright law infringement. Using the example of Mickey Mouse once again, if someone were to create an animation of a character named Rickey Rouse who had small ears, a low-pitched voice, and a terrible habit of swearing, the animator would more than likely get off scot-free. This is because “copyright law gives parodies and spoofs a fair share of breathing room [on two conditions]...First, the parody must be obvious...Second, the use must reproduce no more of the work than the minimum necessary to conjure up the original in the audience’s mind” (“Student Media Guide” par. 53). So, if an artist simply Photoshopped a fez hat onto Mickey Mouse’s head, this technique would not be considered a parody, and the artist would not be protected if the Walt Disney Company were to sue the artist for copyright infringement.

The Disney Company is well known for being intense litigators when it comes to their copyrighted material. In a response to an artist who asked a question as to whether or not he could sell his paintings of Disney characters to his friends, Copyright Infringement Attorney Mario Sergio Golab replied in a comment stating, “No you cannot paint, offer for sale, sell, or otherwise tinker with a Disney character, at least it is illegal without an express license from the Walt Disney company.” Intellectual Property Law Attorney Oscar Michelen concurred:

Would Disney find out if you are just selling them among your friends—probably not. But if they did they will issue a cease and desist letter and even maybe bring litigation as they are fierce protectors of their marks. We represented a party planning company that was contacted and nearly sued by Disney for using their characters at birthday party events.

In fact, the Walt Disney Company is so strict in regard to their copyrighted work that there is a theory going around among critics and researchers alike that the CTEA and previous copyright term extensions came about solely due to the urgings of Disney lobbyists.

### **The CTEA and Disney**

Copyright term extensions are not new phenomena. In a way, Dworkin was not very far off when describing America’s copyright history as a novel:

In America’s original copyright system, protection only lasted for 28 years. By the mid-20th century, Congress had doubled the maximum term to 56 years. Then, in 1976, Congress overhauled the copyright system. Instead of fixed terms with a maximum of 56 years of protection, individual authors were granted protection for their life plus an additional 50 years, an approach that had become the norm in Europe. For works authored by corporations—Hollywood blockbusters, for example—copyright terms were extended to 75 years.

(Lee par. 4)

After the CTEA, copyright was then extended for another twenty years (Lee par. 5). It is difficult to say whether the new copyright extension was made to help creators or harm the public. Senator Hank Brown wrote a minority report for the Senate Judiciary Committee in 1996 that stated: “To suggest that the monopoly use of copyrights for the creator’s life plus 50 years after his death is not an adequate incentive to create is absurd. Denying open public access to copyrighted works for another 20

years will harm academicians, historians, students, musicians, writers, and other creators who are inspired by the great creative works of the past.” However, the majority of Congress did not share Brown’s view.

In fact, the extension of the copyright law was not truly challenged until Eric Eldred, a publisher of works in the public domain, brought a complaint to the court. After repeated failures, Eldred climbed the judicial ladder to reach the Supreme Court. Eldred had the help of Larry Lessig, Roy L. Furman Professor of Law and Leadership at Harvard Law School and previous professor at Stanford Law School, who decided to take on the case *pro bono publico* (School). He is the creator of Creative Commons, “an ambitious project through which he hopes to establish a giant repository of works unfettered by restrictive copyright laws,” and avid advocate of a rich public domain (Levy). Lessig probably jumped at the chance to represent Eldred because the court case made history. *Eldred v. Ashcroft* was the first legal challenge to the copyright term extensions in over two hundred years (Eshgh). Lessig was also quite aware of what he was up against.

In an interview done by *The Washington Post*, Senator Brown commented, “The real incentive here is for corporate owners that bought copyrights to lobby Congress for another 20 years of revenue—not for creators who will be long dead once this term extension takes hold.” The facts match up. According to Schlackman, there has been a trend of copyright extensions in direct correlation with the copyright term expiration date of the Walt Disney cartoon *Steamboat Willie*. The CTEA saved Mickey Mouse from

falling into the public domain because there was only five years left for *Steamboat Willie*’s copyright to expire. “That pushed Mickey’s copyright protection out to 2023,” Schlackman said. Lessig pointed out the irony of the Walt Disney Company lobbying to protect its own copyrights when it has scoured the public domain to create its own works. “[N]o one can do to Disney as Disney did to the Brothers Grimm,” Lessig jested in an interview (Levy).

The new expiration date for *Steamboat Willie* is nearing yet again. Law professionals and scholars are foretelling another term date extension to come up very soon. “In 5 years or so, we can probably expect to see stories about proposed changes to copyright duration, once again. It is unlikely that a company as strong as Disney will sit by and allow *Steamboat Willie* to enter the Public Domain,” Schlackman said. Others concur with Schlackman. “If Hollywood and their allies want to do this, they’re going to have to start doing it now,” said Chris Sprigman, a legal scholar at New York University, during an interview (Lee). The Washington Post has high hopes for public domain advocates: “One advantage opponents will have this time around is better arguments and evidence. Public debate over the last extension has stimulated increased academic research into the economics of the public domain, and as a result, we know a lot more about the costs of longer copyright terms than we did 20 years ago” (Lee). Eldred and Lessig have stirred up public sentiment in regard to the issue of copyright extensions. All one can do now is wait to see what happens next.

## References

- "Battles on Copyrights Part 2 - Mimicry Is Not Creativity." *Comipress.com*. Trans. Masako. Comi Press, 18 Feb. 2007. Web. Dec. 2016. <http://comipress.com/article/2007/02/18/1522.html>
- Birnhack, Michael. "Copyright Law and Free Speech After Eldred V. Ashcroft." *Southern California Law Review*, 76 (2003): 1275-1437. Web. Dec. 2016. <http://lawreview.usc.edu/issues/past/view/download/?id=1000337>
- Boyle, James. "What Could Have Entered the Public Domain on January 1, 2016?" *What Could Have Entered the Public Domain on January 1, 2016?* Duke University’s Center for the Study of the Public Domain, 2016. Web. Dec. 2016. <https://web.law.duke.edu/cspd/publicdomainday/2016/pre-1976>
- "Casey at the Bat (1946)." *IMDb*. IMDb.com, n.d. Web. Dec. 2016. <http://www.imdb.com/title/tt0038399/>
- Christiansen, Linda. "Marketing and the Law: Mickey Mouse Still Belongs to Disney: The Supreme Court Upholds Copyright Extension." *Journal of the Academy of Marketing Science*. Ed. Ann Morales Olazdabal, Anita Cava, and Rene Sacasas. University of Miami, Spring 2004. Web. <https://doi.org/10.1177/0092070303262522>
- DeCristofaro, Dina Sechio. "Author to Author: How Text Influences Young Writers." *The Quarterly* 23.2 (2001): n. pag. Print.
- Dierking, Rebecca. "Creative Copying, or in Defense of Mimicry." *The Quarterly* 24.4 (2002): n. pag. Web. <http://www.nwp.org/cs/public/print/resource/448>
- Eshgh, Amy, and ARL Staff. "Copyright Timeline: A History of Copyright in the United States." *Arl.org*. Association of Research Libraries, n.d. Web. Dec. 2016. <http://www.arl.org/focus-areas/copyright-ip/2486-copyright-timeline#.WEy9T9UrKpo>
- Gardner, Martin. "Casey At The Bat." Editorial. *American Heritage: Collections, Travel, and Great Writing On History* Oct. 1967: n. pag. *Casey At The Bat | American History Lives at American Heritage*. American Heritage. Web. Dec. 2016. <http://www.americanheritage.com/content/casey-bat?page=3>
- Golab, Mario Sergio. Comment on "Can I Legally Sell My Own Paintings of Disney Characters If I Put the Disney "D" in the Bottom Corner?" *Avvo*. Avvo, 27 Jan. 2012. Web. Dec. 2016. <https://www.avvo.com/legal-answers/can-i-legally-sell-my-own-paintings-of-disney-char-626163.html>
- Lee, Timothy B. "15 Years Ago, Congress Kept Mickey Mouse out of the Public Domain. Will They Do It Again?" *The Washington Post*. WP Company, 25 Oct. 2013. Web. Dec. 2016. [https://www.washingtonpost.com/news/the-switch/wp/2013/10/25/15-years-ago-congress-kept-mickey-mouse-out-of-the-public-domain-will-they-do-it-again/?utm\\_term=.ff898e1cee05](https://www.washingtonpost.com/news/the-switch/wp/2013/10/25/15-years-ago-congress-kept-mickey-mouse-out-of-the-public-domain-will-they-do-it-again/?utm_term=.ff898e1cee05)
- Levy, Steven. "Lawrence Lessig’s Supreme Showdown." *Wired*. Conde Nast, 1 Oct. 2002. Web. Dec. 2016. <https://www.wired.com/2002/10/lessig-3/>
- Michelen, Oscar. Comment on "Can I Legally Sell My Own Paintings of Disney Characters If I Put the Disney "D" in the Bottom Corner?" *Avvo*. Avvo, 27 Jan. 2012. Web. Dec. 2016. <https://www.avvo.com/legal-answers/can-i-legally-sell-my-own-paintings-of-disney-char-626163.html>

- Reuters. "Ronald Dworkin Dies at 81." Haaretz.com. N.p., 15 Feb. 2013. Web. Dec. 2016. <http://www.haaretz.com/jewish/news/ronald-dworkin-dies-at-81-1.503643>
- Schlackman, Steve. "How Mickey Mouse Keeps Changing Copyright Law." *Art Law Journal*. Art Law Journal, 15 Feb. 2014. Web. Dec. 2016. <http://artlawjournal.com/mickey-mouse-keeps-changing-copyright-law/>
- School, Harvard Law. "Lawrence Lessig." Harvard Law School. N.p., n.d. Web. Dec. 2016. <http://hls.harvard.edu/faculty/directory/10519/Lessig>
- "Student Media Guide to Copyright Law." *Student Press Law Center*. N.p., 17 Aug. 2015. Web. Dec. 2016. <http://www.splc.org/article/2015/08/student-media-guide-to-copyright-law>
- United States Copyright Office. "Copyright in Derivative Works and Compilations." *Journal of the American Statistical Association* 35.209, Part 2: [Proceedings of the Centenary Celebration] (1940): 303-04. Library of Congress Copyright Office, Oct. 2013. Web. <https://www.copyright.gov/circs/circ14.pdf>
- Van Niekerk, Ralph. "Solving the Mickey Mouse Copyright Problem." *General Reference Center GOLD*. Mondaq Business Briefing, 19 Jan. 2015. Web. [http://go.galegroup.com/libproxy.csustan.edu/ps/i.do?&id=GALE|A397926131&v=2.1&u=csustan\\_main&it=r&p=GRGM&sw=w&authCount=1](http://go.galegroup.com/libproxy.csustan.edu/ps/i.do?&id=GALE|A397926131&v=2.1&u=csustan_main&it=r&p=GRGM&sw=w&authCount=1)

# A digital crescendo: The unsustainable state of the digital textbook market

Brett Martin\*

*B.A. Candidate, Department of Computer Science, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 18 April, 2017; accepted 19 July 2017

---

## Abstract

The purpose of this paper is to show how even a forward-thinking implementation of digitally available books can be vulnerable to changing markets and moreover how it has fostered a dangerous environment for book publishers. Physical book sales are suffering in the face of an expanding and robust used book market, powered by online resellers, while the digital textbook has become a goldmine for cost-averse higher education students, who can acquire these digital books illegally, quickly and most importantly, free of charge, from a glut of easily accessible websites. The main aspect explored by this paper is the prevalence of illegal downloads through data gathered via torrent sites that host many thousands of common textbooks along with secondary aspects regarding the sales of digitals and physical books and trends for this data over the past ten years. This research and analysis will provide valuable information regarding the state of digital textbook market and digital textbook piracy while hopefully revealing the precarious condition of the textbook market as a whole.

*Keywords:* publishing industry, digital textbooks, copyright infringement, digital piracy

---

## Introduction:

The digitalization of print materials in the 21st century has significantly decreased the base cost for the creation and distribution of media-based goods and hence it has affected the profits of writers and publishers alike, in many cases for the better. This is in large part due to the effects of globalization on the interconnectedness of world society. Production and duplication of these works have become tasks that are both low-cost and simple to do, increasing the gamut of media products available for purchase in the open markets. However while this phenomenon has made the legal distribution of creative works easier, it does so while also making the illegal dissemination of those same works incredibly simple, even for the technologically impaired. However, for those in Generation Y, currently attending higher educational institutions across the globe this has led to a new development – the digital textbook. This is only the natural progression of technology, as the written copy leads to the photocopy which, with the advent of internet distribution platforms, has become the digital copy. This begs the question of how does the illegal distribution of textbook content affect the legal sales of the work and, more importantly, is the current status quo sustainable? This question and the associated concerns will not dissipate in the coming decades, as the nefarious side of technological innovation competes with the copyright holders and enforcement

agencies for control over the digital media space, and more specifically the copyrighted content that is seemingly impossible to adequately protect.

## Economic impact of the piracy

In the year 2000, the total market for books in the United States was 25 billion dollars, and book sales via the internet represented 5% or 1.25 billion dollars (BISG, 2014). While the total market for books is now worth over \$100 billion annually, digital books account for more than 20% of that market, and that percentage is increasing (Gilbert, 2015, p. 167-172). This trend is following for textbooks in the same manner – except the younger generations currently in college have found increasingly more efficient ways to acquire textbooks. An article in the *Washington Post* outlines the concerns of these digital textbook publishers, as it tracks digital books being offered in college classes for purchase by students. Tracking five of the most popular classes from several different universities, all the textbooks that could cost between \$100 and \$400 when purchased from a retailer could be obtained at no cost online (Strauss, 2014). And because of this fact, thousands of college students take to Twitter, Facebook and other social media platforms to celebrate their savings at the beginning of each new semester. The very public announcements of bypassing the existing copyright systems are bold and proud –

---

\* Corresponding author. Email: [bmartin6@csustan.edu](mailto:bmartin6@csustan.edu)

highlighting the fact that society has taken the side of the so-called “underdog”, and has banded together against the giant corporate behemoths. Taking introductory courses means that students in some large schools can save upwards of \$1000 per semester in book costs (Strauss, 2014). But this model is not sustainable, since, if students resort wholly to downloading their books illegally, then there will be no monetary incentive to provide digital copies of the books – and the trend that has made books so convenient and free for many may disappear entirely.

In the context of downloading textbooks off the Internet, illegal is any action meant to bypass the distribution channels of the book’s publisher, and this type of action has grown increasingly common in the past decade. A resource that underscores the deeply technological nature of textbook piracy, and the young group it attracts, is the *Reddit.com* group called “r/Piracy”. In a post by Reddit user “ChopperHunter”, he asks the community for suggestions on websites for textbook piracy, and a response by another Reddit user “siomi” suggesting the Ecuador-based and Russian-affiliated site “gen.lib.rus.ec” garnered 48 upvotes; the page itself has had over 50,000 unique page views (ChopperHunter, 2015). This is simply one small example of a much larger issue - that textbook piracy is not a taboo issue and people are not afraid to discuss the best methods and strategies for locating these expensive textbooks for free. On the contrary, there is not an open discussion by textbook publishers and authors about how to prevent these piracy methods – and a discussion of this nature is sorely needed, as the technologically savvy and internet-fluent generation of college students is pirating their way through school. An investigation of the website “gen.lib.rus.ec” shows that the site hosts over 1.5 million books, from all genres and all free to download by anyone who is interested; not only this but functions for uploading your own eBooks to the site are also available. Listings are organized by Name, ISBN and have multiple links for each book, should one of them be taken down for copyright infringement (Library Genesis).

### **A case study: Textbook piracy in Portugal**

In many ways the challenges that are facing the book industry now are epitomized by the textbook industry, where books required for all students are costly and a young population is being forced to acquire them by professor who may not even use the book more than once or twice during the semester. The problem is also exacerbated by the high level of technological fluency in the college-attending population, along with the limited economic resources of college students in many circumstances. This means that the incidences of textbook piracy are greater than piracy when comparing the two book types, and the issue will only increase in

severity as technology, in the form of larger cellular telephones and tablet computers mean access to technology with which to read electronic books, pirated or not, is higher than ever.

An excellent case study was conducted by Francisca Rebelo of Católica-Lisbon School of Business and Economics in Portugal, in which they collected data and subsequently analyzed the textbook piracy. Rebelo surveyed students at the Católica- Lisbon School of Business Economics, and found that a majority of students, when faced with the decision whether to purchase a book or to pirate it, they predominately chose the latter (Rebelo, 2015, 24-26). It is also interesting to note that Rebelo found that the greatest motivation for students to pirate a textbook was not the cost, but actually it’s the perceived use-value of the book – if the student felt that the professor would rarely require the book be used, or the class was focused on a different textbook, then this would drive piracy of said textbook (Rebelo, 2015, 8). In fact, Rebelo even discovered that the price of the book and the probability of piracy were *negatively* correlated, whereas the piracy rate is positively related to the “diffusion of technology that facilitates pirating” (Rebelo, 2015, 24). According to Rebelo, there is a correlation between these results from student surveys of textbook usage and similar studies of the music industry. This is in contrast to the study’s results about whether students prefer reading on paper or via a digital screen. The results were surprising, as 87% of students preferred paper to electronic books, despite the penetration of laptops and tablets in the classroom. In 7 of the classes sampled, of the students who acquired the book required for their class, only 58% actually purchased the book – with the remainder either photocopying it or downloading it from the internet.

The Berkeley Technology Law Journal’s June 2016 article concerning “Copyright, Libraries, and the Textbook Arms Race” observes, and poignantly states, that the ever-increasing cost of textbooks has led to a “flourishing sharing economy”, wherein piracy is tied to an “increase of freedom and knowledge”, and can be construed as a beneficial part of our society (Acharya, 2016). The fact presented here is this: that the current model, where piracy can be viewed as a positive aspect by the society at large is ridiculous. On the horizon is nothing but the same – the top Google search results for textbook piracy bring up tutorials on how to get away with it (Acharya, 2016).

### **Things are only getting tougher**

The future of the digital textbook is truly hanging in the balance, as more and more books are being released in digital formats. Just as the music industry

has been dominated by the likes of Pandora and Spotify, who are able to license the music at a fraction of the cost and then resell it in bulk to end users, who pay a flat fee to access as much content as they want (Gilbert, 2015). Audible, an Amazon company, has designed its audiobook market with a similar approach—sign users up for a monthly subscription and then supply them with a certain number of audiobooks from the collection (Coyle et al, 2009, 1036-1037). The difficulty with books that music typically does not face is that a book is usually read once, maybe twice, and then put aside for a time before being read again. This means that, unlike a new hit album, once a book has been read by a user they are unlikely to read it again soon, leading to challenges about ensuring new content is always available.

It also means that authors who are already struggling to make ends meet may have to deal with a corporate giant to get their book out there—and by doing so sacrifice most of the money they would have made. But this pales in comparison to the growing issue of digital textbook sharing, which is only increasing in prevalence as the effects of the internet spread rapidly through the society. Textbooks published recently and in the future will be released in both digital and physical formats, meaning that unlike older out-of-print books, there are readily available digital versions, which, after being purchased by only one user can be distributed across the Internet (Bae, 2006). The most popular sources for this illicit content are torrent sites, which provide a peer-to-peer distributed file-sharing system, where the server does not host the file, only a link to the swarm of peers who have copies of it. Once a user joins this swarm, they download the book in pieces from different users and then it is assembled once the download completes. This method means it is very difficult to take down the source of the file, since hundreds, even thousands of users all have copies they are sharing, and there is not one server that hosts the file.

### **A right answer must be somewhere**

A consortium of universities intent on changing the way digital technologies are used in higher education, Unizin, has laid out the shortcomings of the current textbook model and have posited a new theory to combat it. The cause, according to Brad Zurcher of Unizin, is supply and demand relationships in the textbook market (Zurcher, 2016). The former refers to the position of the student, teacher and the textbook publisher in the typical

higher education institution, where the textbook publishers approach the teachers to advertise their new book, and the students are nowhere to be found in this conversation. After the teacher has selected a book, and been given a complimentary copy, the students are then required to purchase it. The professor, at this point, has no investment with regard to the cost of the textbook (Zurcher, 2016). The problem here is the student is free to seek out the textbook wherever they like and the textbook publisher then compensates by raising the prices and charging more for supplementary materials. The supply and demand therefore determines the price, and, for textbooks, the demand is low once the book is available for download for free, therefore the price has to be increased dramatically to make up for the lost revenue.

This process has replicated itself, according to Zurcher, and has driven the price of textbooks up 1104% since 1977, more than tuition costs, healthcare or even home prices (Zurcher, 2016). This type of unprecedented price increases is wholly unsustainable and Zurcher, Gilbert and the Berkeley Law Journal authors are not shy about this point – something must change.

### **Conclusion**

Through the first decade of the 21st century, the world of textbooks has been turned on its head. Exploring the economic impact of the internet and piracy in digital textbook sales in the coming decades will be a key subject for researchers, as the continued transition from physical books and digital books will lead to more and more reliance on electronic textbooks for profits from the biggest publishing houses. This issue is further compounded for textbooks because those titles cost far more than traditional books such as a typical fiction novel and the book budgets for college students are generally very limited. There is great incentive to pinch pennies during one's college tenure, and one of the easiest ways to do so is to cut down on spending for required textbooks. When it is as easy as typing the book title into Google, it is difficult to fault the student for doing so. It is important, rather, to recognize that the system is broken in its current state. The economics of supply and demand fight constantly against reasonably priced textbooks and piracy of these same books just increases the price for those legitimate consumers. Without a doubt there is much to be done on this front, and the first step is for the biggest players in the market to realize that things much change – and soon.

## References

- Acharya, B. (2016, June 22). Copyright, Libraries, and the Textbook Arms Race. *Berkeley Technology Law Journal*. University of California Berkeley.
- Bae, S. H., & Choi, J. P. (2006). A model of piracy. *Information Economics and Policy*, 18(3), 303-320.
- Bhattacharjee, S., Gopal, R. D., & Sanders, G. L. (2003). Digital music and online sharing. *Communications of the ACM Commun. ACM*, 46(7), 107-111.
- BISG (2014). "New BISG Research Shows Students Will Pay for Reduced Study Time, Better Outcomes." BISG. *Book Industry Study Group*, 6 Aug. 2014.
- Carey, K. (2012, December 20). Never Pay Sticker Price for a Textbook Again. *Slate*.
- Coyle, J. R., Gould, S. J., Gupta, P., & Gupta, R. (2009). "To buy or to pirate": The matrix of music consumers' acquisition-mode decision-making. *Journal of Business Research*, 62(10), 1031-1037.
- Channel, D. (2016, March 02). Barnes & Noble (BKS) Passes Through 5% Yield Mark. *Forbes*. Retrieved March 02, 2016. Web.
- Gilbert, R. J. (2015). E-books: A Tale of Digital Disruption. *Journal Of Economic Perspectives*, 29(3), 165-184.
- Hufford, A. (2016). Barnes & Noble Education Swings to Loss. *Wall Street Journal*. Retrieved March 02, 2016.
- Inda, J. X., & Rosaldo, R. (2002). *The Anthropology of Globalization: A Reader*. Malden, MA: Blackwell.
- Jackson, N. M. (2015). Who let the books out?. *University Business*, 18(7), 49-52.
- Khouja, M., & Park, S. (2007). Optimal Pricing of Digital Experience Goods Under Piracy. *Journal of Management Information Systems*, 24(3), 109-141.
- La Monica, P. (2015). Can Barnes & Noble survive? *Central News Network*. Retrieved March 02, 2016.
- Lewis, John K. "Is Free Really Cost-effective? A Case Study of Open Access E- textbook Usage in Several Undergraduate Business Courses." *Salve Regina University*, 1 Nov. 2011. "Library Genesis." *Library Genesis*. *Library Genesis*, Web. <<http://gen.lib.rus.ec/>>.
- MacDonald, L. E., & Fougere, K. T. (2002). Software piracy: A study of the extent of coverage in introductory MIS textbooks. *Journal of Information Systems Education*, 13(4), 325-330.
- Munarriz, R. (2016). Can Barnes & Noble Keep Going After Last Week's 24% Pop? *The Motley Fool*. Retrieved March 03, 2016.
- Peitz, M., & Waelbroeck, P. (2006). Piracy of Digital Products: A Critical Review of the Theoretical Literature. *SSRN Electronic Journal*, 62-105.
- Perry, M. J. (2015, July 26). The new era of the \$400 college textbook, which is part of the unsustainable higher education bubble. *American Enterprise Institute*.
- ChopperHunter. "Bests Sites for Textbook Piracy? • /r/Piracy." *Reddit*. *Reddit*, 19 Oct. 2015. Web.
- Rosen, J. (2014). Booksellers Edgy About Harper Direct-Sale Program. *Publishers Weekly*, 261(46), 6-7.
- Strauss, V. (2014, September 14). More students are illegally downloading college textbooks for free. *Washington Post*.
- Zurcher, B. (2016, March 16). Everyone Wins with the Institutional Model. *Unizin*.

# Bias in the meeting of depths and shallows: Search engine algorithms and the untapped power of the brain

Emelie Pepito\*

*B.A. Candidate, Department of Philosophy, California State University Stanislaus, 1 University Circle, Turlock, CA 95382*

Received 17 April, 2017; accepted 19 July 2017

---

## Abstract

It is the intention of this paper to explore the hope neuroplasticity offers in derailing the isolation, dogma, and bias generated by algorithms and the passive acceptance of an emotional and intellectual status quo. In particular, this paper is concerned with how the brain's non-conscious assimilates and develops memories and emotions based on external stimuli: experiences, word associations, search results and news feeds. Utilizing the work of experienced researchers in both algorithms and neuroscience, this paper draws attention to the emotional formation of memories and the ways in which this function of our brain and the bias of personalized algorithms are working to make us more biased, sheltered, dogmatic, and emotionally triggered. Personalized algorithms deliver only Democratic news to those whose search indicates such a preference, vice versa for Republicans, and hides dissident, unpopular minority views. This enhances and sharpens the lack of well informed, multi-view conversations regarding important issues of the day and limits an individual's ability to grow, change, and experience new ideas. Brain functions store the search results based on memories, emotions, and associations derived from past experiences. Each new memory enhances an emotional response, such as fear, hate, love, and disgust. Nearly a century after Mussolini in Ethiopia, the Holocaust, and more recently, the Rwandan Genocide, we still are seeing hatred, bias, and emotional, fear-based decisions triumph. The presence of the world-wide web is not eliminating narrow-mindedness and bias. This paper will show that the power of non-conscious activity can be utilized to rewire our brains to knowingly process external stimuli. Thus, we can move ourselves out of social/cultural polarization, end filter bubbles of information, and utilize consciousness to make peace in an increasingly globalized world.

*Keywords:* non-conscious, personalized algorithms, filter bubbles

---

## Introduction

The deep rooted split in American politics has been indisputably exposed in the last year, as people on polarized fronts of political issues take to the streets and Facebook, expressing their hatred in vehement terms. The world as a whole is not new to this sort of polarization and upheaval. The twentieth century saw genocides of the Herero, Namaqua, Ukrainians, Jews, South Sudanese, Tutsis, Armenians; it saw religious, social, and ethnic purges in Cambodia, Russia, and the fiercely fearful and bitter years of McCarthyism. This list does not even touch the atrocities of the last century. Now, the highly enlightened twenty-first-century—which considers itself so superior to its closed-minded, racist ancestors of a mere thirty years ago—allows big media and politics to split it down falsely irreconcilable lines, embraces fierce racism and bigotry, and this against the milieu of the mass exodus and the rapidly increasing death toll of Syrian and Iraqi refugees. In American politics, the split and lack of effort on both sides to find the common ground has reached new depths. Despite the shocked eyes roving over history to the present, users of the internet allow search engines to push them into filter bubbles while they mindlessly assimilate the

information shoved towards them. Yet, there is still hope. The purpose of this paper is to connect personalized algorithms, operations of the non-conscious parts of our brain, and neuroplasticity to describe the dangers of mindless internet browsing. Also, it will show that the discovery of neuroplasticity provides a way out of the filter bubbles that biased algorithms and the functions of our non-conscious have locked us into.

## Introduction of terms

Search engine bias and non-conscious are not terms commonly heard at cocktail parties or while waiting in Target queues. Maybe this is because, according to James Grimmelman, author of *The Google Dilemma*, Google's search engines proudly consider themselves unbiased, and the entire point of a non-conscious is that it operates discretely. However, as Grimmelman points out search engines are biased because you are biased. Non-consciousness is non-conscious because it is happening too quickly for us to easily recognize it.

*Page Rank*

---

\* Corresponding author. Email: [epepito@csustan.edu](mailto:epepito@csustan.edu)



One way Google is biased is through an algorithm known as *Page Rank*. Page Rank has been used in various ways to manipulate primary search engine results. This is done through a process called Google bombing. The way Page Rank operates is it trolls the web looking for links and key words that are used over and over again by users. Google then uses these to describe, identify, and measure the relevance of a webpage. This means that the site at the top of a search page might not be the most reliable, but it will be the most popular (Grimmelman, 2009, p.3).

#### *Non-conscious*

This is a term that describes the activities in our brain that we are unaware of. The unconscious has a connotation which causes one to think of something that is removed or passive. However, the non-conscious is anything but passive. According to Dr. Caroline Leaf, a learning specialist who has spent decades studying brain function, the brain is performing “400 billion actions, of which you are only conscious of around 2,000” in any given moment (Leaf, 2007, p. 3). It is the nearly 400 billion unaccounted actions that compose the non-conscious. These are the ones that are working every moment to make sense of the stimuli entering the brain, to sort it and to help pick out the most relevant based on past stored memories. It actually operates a bit like an internal page-ranker, sorting the world for us and creating new memories based on past memories with corresponding emotions, and then giving us an emotional response for a situation that it thinks we will like best (Leaf, 2009, p. 52).

#### **Research question**

Search Engines use algorithms, ranking methods, and other systems to filter, file, and arrange search results in orders that best suit our individual needs and preferences, in the end giving us not the information we need but the information we want. These personalized algorithms and site ranking systems go beyond helpful and cause us to become biased echo chambers of, not right, but popular, comfortable, polarizing opinions. The biased search results are coupled with the non-conscious limbic system, which organizes, in our cortex, the biased search results based on the emotions attached to related and previously stored memories. This means our filter bubble, into which we are pushed by bias algorithms, is emotionally charged. Where there are emotions there are always actions, which is why it is incredibly important that we understand the importance of having conscious interactions with search engine results so that we get to choose our emotion, and by proxy, our actions. Then as we move into conscious interactions with the images and information assimilated through algorithms, we can use neuroplasticity to reorganize our memories, creating new connections and thought patterns.

#### **Study**

Search engine bias occurs through both personalised algorithms and more general ones like Google’s *Page Rank*. In one instance, Grimmelman cites (2009, 3), *Page Ranks* web connections established a strongly anti-Semitic website, which advocated a second Holocaust, as the most relevant result when users searched the word “Jew”. Another aspect of the search engine is the personalized algorithm. When we search from a personal computer we receive search results based on our history and the cookies that are stored on our computer (Lee, 2016). If a person is signed into *Facebook*, *Youtube*, *Google+*, or any personalized account while running a search then the personalized algorithms and cookies gather information from his friends list and “personal habits.” In addition, algorithms gather information from within the app, such as pages he has recently linked to, what he likes, who he follows on social networks, and what the friends he *most commonly* interacts with seem to prefer. This type of algorithm produces narrowly tailored results. For example, if someone spends their whole life blind, they would have a particular understanding of the world and relationship with the world corresponding to his blindness. However, if he believed that there was no sun simply because his blindness has convinced him so, we would consider his view misinformed and incomplete. Likewise, if someone working in an impoverished neighborhood said that the bourgeoisie were all evil, or if a wealthy business woman said all poor people are lazy, we would correct them for their one-sided view. Over time, uncorrected and unexamined world-views become biases that inform personal interpretations of culture, as viewed through these emotional lenses. Then most people choose friends who share the same beliefs and follow news that reinforces them. Furthermore, the personalized algorithms offer individuals Google word searches that further support their biases, and they become trapped in “filter bubbles.” Bozdog and Hoven (2015) helpfully point out that filter bubbles cause problems because they separate and insulate people from disagreements, information to confront disagreements, common ground, new ideas, and minority ideas. The dangerous bit is that many companies present algorithms as purely helpful little gnomes working in the background. Google’s Privacy Policy states (*Google Privacy Policy*, n.d.):

“When you search for a restaurant on Google Maps or watch a video on YouTube, for example, we process information about that activity— including information like the video you watched, device IDs, IP addresses, cookie data and location. We also process the kind of information described above when you use apps or sites that use Google services

like ads, Analytics and the YouTube video player.”

In many ways this quote makes personalized algorithms seem beneficial, after all, they were developed with my ease and comfort in mind. And in many ways it seems benign in that it only caters to innocent personal preferences. For instance I am particularly attracted to sunsets, good wine, and the feel of a sailboat knifing through the water. On the other hand, McDonald’s makes me feel gross, so I avoid the big “M”, and all fast food joints, grease, and sub-par service. Google’s search engine is meant to tailor my online experiences so I see advertisements for boats and not for McDonalds, and when I search for food it gives me a list with fast food joints at the bottom. However, the line between preference and bias is thin. So, a personalized algorithm added to our highly operational subjective conscious, which does not allow us to be unbiased, and this entire process becomes *dangerously* false. Because there is no such thing as benign information, and even preferences have a dangerous edge (think of food ads, sugar preferences, and the growing obesity rate). Every search result and every news feed reinforces our worldview, our ways of relating to others, and our systems of belief. Now, in order to understand how this is possible and its implications it is important to understand how the brain works.

Our thoughts and memories are stored in protein trees called dendrites, and these trees grow in the cortex of the brain. Now, every electrical stimuli enters through the thalamus, but before it is stored away as a little dendrite tree, it passes through what Dr. Leaf refers to as a “factory,” scientifically known as the limbic system, which is a process of the non-conscious. When I am scrolling the web, the advertisements will be based on my browsing history. If I searched for a dingy and read some newsletters from the Vendee Globe, I am guaranteed to see an advertisement for a Jongert. The advertisement image enters my entorhinal cortex. It is then relayed to the thalamus, which accepts it and tells the cortex that there is a sailing image incoming. As the sailing image passes into the cortex, any and all associated memories are “woken up,” and they return with the new image to the thalamus. The associated memories’ purpose is to provide an emotional categorization for the new stimuli. From the thalamus, the appropriate electrical symbols are sent to the hypothalamus, which takes the “happy chemicals”—or pleasant emotions—built into my past memories of the sunset sails, and applies them to the Jongert advertisement. Then the hypothalamus sends out signals that release the corresponding emotions, so that my body relaxes, feeling happy and nostalgic. The emotional chemicals have to be released because it is only when they are released that a new memory can be built—a memory of me feeling happy and nostalgic (Leaf, 2007, p. 22-27). This is a cheerful example, but the same thing occurs with negative memories and

emotions. For example, when I was a young child, we had guests over and some were my own age. While they were there, I knocked down a bird’s nest to seem “cool.” Naturally, I got into heaps of trouble for causing the death of the little birds, and because of the trouble I was in, I felt ashamed, angry, and afraid of my own irresponsibility around guests. This experience released emotional chemicals into my cortex, which built little memory trees replete with the anger and fear associated with that memory. For years after that, when I saw baby birds I felt ashamed, and when people came over I felt angry and overwhelmed. Because, as shown, every similar experience or stimuli awakens related memories and emotional stimuli that the brain utilizes as it stores away the new memory. While each new memory was being formed, the hypothalamus inundated my body with fear and anger chemicals, which caused my body to tense up, feel afraid, and respond in like manner. The new memory is now a part of a growing network of memories. Each time the memories are triggered, the amygdala releases the negative emotions. This association is so strong because the amygdala has “more connections going from [itself] to the cortex than from the cortex to the amygdala” (Leaf, 2007, p. 28).

Because the non-conscious part of our brain establishes memories through the emotions of related memories, when dealing with filter bubbles we have an internal emotional filter bubble and more external sensory filter bubbles. When we passively scroll through search results and heedlessly let our non-conscious limbic system form new memories, we become more biased and emotionally driven. Then as we search online the words we choose and the websites we click on are directed by our emotions from the stored memories. In *Business Insider*, Eric Schmidt, CEO of Google, is reported to have said (as cited in the *Atlantic*, 2010),

“With your permission, you give us more information about you, about your friends, and we can improve the quality of our searches. We don’t need you to type at all. We know where you are. We know where you’ve been. We can more or less know what you’re thinking about”.

We are helping to build our own filter bubbles. On a purely mundane level, biased search engines just give us the answers we already believe so they seem redundant. However, there is something much more serious at stake. Imagine, sitting in a room with a window and a door, at any point one can walk out. In front of the window a man is beaten. As he is beaten, all the pain I experienced as a child being beat up on the playground floods out at these new stimuli and is sorted accordingly. Now, passing in front of the window are violent and discriminating scene after scene. They might not get any more violent, but each time

the anger chemicals are released and another memory is stored away, a memory is built on increasing layers of anger. Eventually, there is enough emotion built into one's core that one goes out and takes action. That action might look like Nelson Mandela who forgave, but, if one has been a passive receptor of ideas, then one's action will be a response to the predominant emotion built around the memories. An example of people acting mindlessly according to the emotion written into their memories was the Hutu and Tutsi situation. They were people like you and me, our equals and our peers, who went out into their streets, to their neighbors' doors and dragged out their neighbors' children, hacking them into pieces: arms, legs, and disfigured faces.

In *Beliefs and Biases in Web Search*, Ryan White (2013) says biases reinforce original beliefs, and rational decision making is limited by the extent of information available to us. This is terribly important to understand because it does not allow for a true flow of ideas, especially if we are forever limited to the information the algorithms choose to give us. It is not enough, though, to diversify our search engine results. For instance, the Scopes Monkey Trial's, prosecuting attorney, William Jennings Bryan has been ridiculed in every relevant college class I have attended. Rightly so, his performance was ludicrous, but no matter how I might diversify my search results or seek the "other" views, as long as the emotion connected with William Jennings Bryan is one of ridicule, I can never escape my bias and the actions resulting from it. Thus, I must address my internal emotional bias and external search result biases to be free from my filter bubble.

### Hopelessness is not the end result

We trust our news sources, we trust ourselves, without ever realizing that we are living breathing powder kegs of bias, emotion, and potentially powerful action. However, this is not the end of our story and there does not need to be a second American Civil War, and refugees do not need to

watch their children die of hunger and drown on suicide crossings of the Mediterranean because of hatred. One of the most exciting notions of the twentieth and twenty-first century is the theory of neuroplasticity. Neuroplasticity means that our brains and our memories—the way we view and interact with the world and our capacity to learn—are not fixed, but rather plastic or malleable. They are malleable, not just until the age of twelve, twenty, or twenty-two but until eternity, or at least until death, in some qualitative degree. This means that no matter what I believe now, I can mould and reform the structure of my dendrites so that instead of being annoyed with the slowness of my sibling's learning capacity, I choose patience with her. Instead of seeing a Republican and seeing an enemy or a fool, I see another scared, biased individual, who can possibly be my greatest ally (Dwyer, 2004).

### Significance/Discussion/Conclusion

This study should not be frightening but it should be sobering. Whether or not the search engine results are extremely varied based on persons, computers, internet connections, or bias within the search engines, I believe people will walk away from my research asking more questions about the results their search engines are pulling up, and examine their reactions to them. Also, as a result of this study, people should want to pursue results that might be varied or controversial, in order to understand how other parties think so that they might be a pro-active part of peace. However, this is only possible if and when we become conscious users of search engines and began applying neuroplasticity to old memories and ways of relating to people. Then, as we continue to have varied political, and ethnic groups of fluctuating size, we will pursue peace and good relations with our neighbours. We will not relate to them based on past emotions, but utilizing, neuroplasticity we can wire forgiveness into past hurt, and learn to empathize with alien experiences and mind sets.

### References

- Bozdag, E. (2013). "Bias in algorithmic filtering and personalization". *Ethics and Information Technology*, 15(3).10. doi: 10.1007/s10676-013-9321-6
- Bozdag, E. & Hoven, J. (2015). "Breaking the filter bubble: democracy and design". *Ethics and Information Technology*, 17(4). Doi: 10.1007/s10676-015-9380-y
- Dwyer, R. (2004). Old dogs learning new tricks. *Psychiatric News*, 39(7), 23-75.
- Google Search Engine "Privacy policy review". Retrieved from [https://www.google.co.uk/?gws\\_rd=ssl#cns=1&gws\\_rd=ssl](https://www.google.co.uk/?gws_rd=ssl#cns=1&gws_rd=ssl)
- Grimmelmann, J. (2009). "The google dilemma". *New York Law School Review*, 53(4), 939-950.
- Jost, J., Banaji, M., & Nosek, B. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25(6), 881-919.
- Lee, B. (2016, Mar 01). How things work: Internet cookies. *University Wire* Retrieved from <http://libproxy.csustan.edu/login?url=http://search.proquest.com/docview/1769088104?accountid=10364>
- Mill, J. S. (n.d.) *On Liberty*. Retrieved from [http://www.gutenberg.org/files/34901/34901-h/34901-h.htm#Page\\_140](http://www.gutenberg.org/files/34901/34901-h/34901-h.htm#Page_140)
- Saint, N., (2010, October, 4) "Google CEO: "We Know Where You Are. We Know Where You've Been. We Can More Or Less Know What You're Thinking About". *Business Insider*. Retrieved from <http://www.businessinsider.com/eric-schmidt-we-know-where-you-are-we-know-where-youve-been-we-can-more-or-less-know-what-youre-thinking-about-2010-10>
- Spitzer, M. (2002). Neuroplasticity. *European Psychiatry*, 17, 12.
- White, R. (2013). *Beliefs and biases in web search*. Retrieved from <http://web.engr.illinois.edu/~massung1/su14-cs410/files/beliefs-and-biases.pdf>