

Fresh Writing

VOLUME 13

Matthew Capdevielle, Editor

Richard C. Bevington III, Assistant Editor

University Writing Program • University of Notre Dame





FRESH WRITING

2013 • VOLUME 13

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Back cover: Law School detail, University of Notre Dame. Photo courtesy of Matthew Capdevielle

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Acknowledgments

This volume of *Fresh Writing* continues a tradition set in motion by Dr. Connie Snyder Mick in 2000, when she initiated the *Fresh Writing* project in collaboration with Dr. John Duffy, Frances O'Malley Director of the University Writing Program. Their vision was to provide a publication venue for some of the most outstanding writing done by students in the first year of their studies at Notre Dame. Now in its 13th year of publication, *Fresh Writing* continues to showcase the excellent work of first-year students. We are grateful to both Dr. Mick and Dr. Duffy for their vision and continued support of the project.

We owe our deepest debt of thanks to our contributors for sharing their work with the Notre Dame community. We also thank those professors whose students' work appears in this volume: Jeff Bain-Conkin, Dr. Julie Bruneau, Dr. Eileen Hunt Botting, Elizabeth Capdevielle, Dr. Erin Dietel-McLaughlin, Dr. Margaret Doody, Emily Gandolfi, Monika Grzesiak, Ed Kelly, Dr. David Ladouceur, Angel Matos, Melissa McCoul, Dr. Annie McGowan, Meagan Simpson, and Dr. Maryam Zomorodian. Thanks are also due to all who submitted essays for consideration for publication and to their professors for guiding them in work that is truly first-rate.

Our Editorial Board is charged with the very difficult task of choosing a select few essays for publication from among a large number of excellent submissions. For their care and diligence in closely reading each submission, we thank Anthony Abordo, Elizabeth Capdevielle, Dr. Patrick Clauss, Dr. Erin Dietel-McLaughlin, John Dillon, Dr. Elizabeth Evans, Shannon Hagedorn, Marielle Hampe, Diego Lopez, Nicole MacLaughlin, Sheila McCarthy, Elizabeth Van Jacob, Leandra Wolf, and Dr. Maryam Zomorodian. We extend special thanks to the Snite Museum Essay Competition Committee, Bridget Hoyt and Dr. Essaka Joshua.

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I also offer my personal thanks to Lisa Wess, Senior Managing Editor at Hayden-McNeil, for her seemingly infinite patience and good cheer and her expert guidance

throughout the *Fresh Writing* project. Thanks also to Liz LaFortune and Eric Dean Hageman for their help with our cover art.

Finally, many thanks go to our Assistant Editor Ricky Bevington for his work on this volume, both before and after his graduation. It has been an honor to work closely with such a fine thinker and writer.

Enjoy this year's *Fresh Writing*!

Matthew Capdevielle, Ph.D.
Notre Dame, Indiana
May 2013

Foreword

From the Assistant Editor:

This is a book about superpowers. Okay, it's actually about writing, but aren't those essentially the same thing?

To compare effective writing to a superpower might seem melodramatic at first. When we think of superpowers we think of things spectacular, outlandish, and superhuman. Things like flying and guaranteed laughs at every joke top the list for many. But writing? I can just hear you now: "Everyone can write! There is nothing enchanted about that."

I admit, when composing a five-paragraph essay for a banal prompt on a standardized test or a painfully constraining assignment in a high school English class, few feel like what they are doing is fantastical. You write exactly what someone, usually a teacher, tells you to write. Like in math, you follow the steps to find the answer, but rather than numbers and operations, writing prompts require words and punctuation.

Though at times completing assignments in *Writing and Rhetoric* and your University Seminar may feel like nothing more than repeating the motions of high school, I would like to suggest that writing in college is different from those formulaic essays of a time past. No longer are you filling in the blanks trying to tell someone what they want to hear. You have reached a point at which you can create ideas that no one else has conceived before. You think, feel, and believe things that are unique to you, and when put down on paper, these ideas can be shared with your professors, friends, and the world. Yes, you will be given guidelines and suggestions as to how to communicate your ideas, but these are merely the tools to refine your newly acquired superpower: the *rhetorical superpower*.

The first year at Notre Dame is a time of discerning the details of your identity: who you are, what you stand for, and what taking that stand means for your future. Notre Dame is a place where both in the classroom and with your friends you are free to explore what you genuinely think, feel, and believe. The recognition of these parts of your identity is what gives you a voice: a voice that begs to be shared as it grows and matures. But finding the right words, the right sentences, the right phrasing,

punctuation, and structure to convince another of the integrity of your thoughts is no easy task. To be honest, to do all of this is nothing short of a miracle, but interestingly a near miracle that is done every day.

This thirteenth edition of *Fresh Writing* contains the voices of 21 students and the ideas they have boldly put on paper for others to read, scrutinize, consider, and discuss. Though I have not personally met each of these writers, just from reading their writing, I and the members of the editorial board recognize how significant the ideas contained within this text are to their respective authors. We can also feel in the writing their strong desire to communicate that significance with their reader. This desire—the desire to share the depth, intricacy, beauty, and value of an idea—directs itself toward a goal that seems simultaneously simplistic and unattainable.

“It seemed good to me...to write an orderly account” says Saint Luke as he introduces his Gospel. The words and ideas we as students share may pale in comparison to the work of Saint Luke. But for us, it, too, is good—fitting—to share the most human thing we have, our ideas, with others. Taking something that is immaterial, created only by us, and, through the vehicle of writing, create the same idea in another’s mind, that is something as magical, as fantastical, and possibly even as divine as one could ever hope to do. No matter the topic, whether folk metal, beauty in art, or nuclear energy, it is crucial that you capture the thought and allow others to access not only the idea but also the *you-ness* inherent within it. That is what our *Fresh Writing* authors have done. They viewed their first year writing courses both as an opportunity to sharpen their rhetorical skill, and also as an opportunity to release the new voice they were beginning to discover. And in doing that they challenge you to do the same. Use your superpower.

Ricky Bevington
Notre Dame, Indiana
May 2013

We are proud to share these excellent examples of student writing with you.

These essays are solely the work of their individual authors and are not intended to reflect the views of the University Writing Program or the University of Notre Dame.



ESSAYS

Author's Biography

MICHAEL DEL GENIO

Michael Del Genio, a proud resident of Keenan Hall, is from Cos Cob, Connecticut. He is majoring in Finance and History and one day hopes to work in the financial services industry. Outside of his academic pursuits, he enjoys playing and following soccer.

“Inspiring a Movement” is a rhetorical analysis of Erin FitzGerald’s article, “Pyramid Schemes.” Michael was drawn to this article in an effort to explain why people continue to consume large quantities of fast and junk foods in spite of the foods’ well-documented detrimental effects on human health. This inquiry ultimately culminated in a research paper comparing the fast food and tobacco industries. Michael would like to thank Professor Maryam Zomorodian, his Writing and Rhetoric instructor, for her guidance in crafting this essay.

Inspiring a Movement

MICHAEL DEL GENIO



In her article entitled “Pyramid Schemes,” published in 2005 in *RevolutionN: The Journal for RNs & Patient Advocacy*, Erin FitzGerald examines food industry marketing and lobbying practices and their adverse effects on the health of American consumers. She argues that food industry advertising has captured American consumers by brainwashing them at a young age and that industry lobbying has suppressed government reports and restrictions on the industry’s unhealthy products. The inevitable result of these combined efforts, she asserts, is the explosion of obesity, diabetes, and heart disease that characterizes the contemporary health crisis. FitzGerald seeks to rally her readers to challenge the food industry using a strongly negative portrayal of the industry as profit-driven and depraved, logical appeals through listed facts, and visual imagery of unhealthy food interspersed throughout the article. Her ultimate goal is to sow the seeds of a movement that will break the food industry’s harmful hold on the American people.

Using highly critical language and descriptions of dubious industry practices, FitzGerald attempts to convince her readers, by rousing their emotions, that the food industry lacks both morals and concern for consumers. She establishes her condemnatory views of the industry by describing it as “a monolith of producers, growers, and suppliers for fast and junk foods” concerned only with its “relentless quest for increasing profit” (“Pyramid Schemes” 13). To support her point, she cites industry marketing targeted at children. Corporations advertise in cartoons, capturing the kids’ attention and encouraging them to seek unhealthy foods like McDonalds from a young age. If children are not ensnared by television, they might be in school, where Coke and Pepsi are paying schools to carry their products, and fast food chains like Taco Bell and Pizza Hut are invading the cafeteria (“Pyramid Schemes” 14, 16). The base of this component of FitzGerald’s argument against

the food industry is a strong pathetic appeal. By citing practices like advertising aimed at children, she depicts the industry as a massive and impersonal entity that places money over the welfare of human beings. Targeting children, who do not know better, with advertisements for products detrimental to their health certainly strikes readers—and especially parents—as morally wrong and outrageous. It rouses a sense of moral injustice. FitzGerald's focus on this particular marketing practice is purposeful: she aims to stir the emotions of her readers against the food industry, making them more sympathetic to her own points.

FitzGerald supplements her pathetic appeal about the evils of the food industry with a logical appeal to show how the food industry's suspect practices have been allowed to continue and how they have harmed American health. She does this to establish a factual base from which she can be more convincing to readers since criticizing the food industry on moral and emotional grounds is not sufficient on its own. According to FitzGerald, lobbying has allowed corporations to continue to market and sell unhealthy products without consequences, and the proliferation of these products has led to America's health crisis. To reinforce her claims, she references the work of the prominent nutritionist and author Marion Nestle and incorporates observations about government policy. For example, FitzGerald cites Nestle's

research on the iconic food pyramid in which Nestle questions the pyramid's credibility. The USDA, which works for the interests of Big Agriculture, actually sponsors the food pyramid. FitzGerald also points out that the sugar industry has exerted great influence during both the Clinton and G.W. Bush administrations, preventing both presidents from taking actions that would have reduced the industry's profitability (but would have improved health). Drawing on these facts and expert accounts, FitzGerald warns that food corporations "are currently waging a war on the idea that excess fat and sugar consumption pose a threat to health" ("Pyramid Schemes" 16–17). The fact that nobody has opposed this damaging campaign, she

concludes, explains the American health crisis. The logical cause-effect outline is essential to FitzGerald's rhetorical appeal. It allows readers to track the deterioration of America's health situation through the actions of the food industry, deepening their understanding of both the historical context of the health crisis and of FitzGerald's argument itself. Moreover, in simple terms, the logical appeal "makes sense" and is thus attractive to readers. If given a believable explanation that they

Having developed a negative portrayal of the food industry and a reasonable explanation, based on facts, for how the food industry has harmed American health, FitzGerald establishes a position from which she can advocate systemic change and encourage her readers to do the same.

can follow, readers are more likely to accept FitzGerald's claims. Convincing readers in this manner is her main rhetorical objective. Having developed a negative portrayal of the food industry and a reasonable explanation, based on facts, for how the food industry has harmed American health, FitzGerald establishes a position from which she can advocate systemic change and encourage her readers to do the same.

While the textual components of FitzGerald's piece form the basis of her argument, the visual imagery in her article also plays an important role by reinforcing her criticisms of the food industry. There are several color pictures of fast and junk foods placed in the article: a burrito that seems to shove the text out of the way, a frosted donut that disappears, bite by bite, across the page, and a container of fries in the bottom corner of the last page ("Pyramid Schemes" 14, 16–17). These images compel readers both to consider their own food choices while navigating through the article and to ponder whether they themselves are eating poorly, damaging their health, and supporting the corporations that FitzGerald denounces. Perhaps the most effective graphic is the one on the cover page. It is a reproduction of the pyramid from the \$1 bill; however, the bottom part of the pyramid, below the eye, is replaced by the divisions of the food pyramid filled with the junk food from the article ("Pyramid Schemes" 12). This image is meaningful for two reasons. First, it supports FitzGerald's previous discussion of the food pyramid's unreliability. Second, and more importantly, the picture reinforces FitzGerald's argument that the food industry cares only about money by placing the industry's products in the familiar visual context of the \$1 bill. The article's title, "Pyramid Schemes," is relevant to this image. In finance, a pyramid scheme is a type of fraud. Thus, FitzGerald uses the negative economic connotation of these words both to describe the fraudulence of the food pyramid and to establish yet another negative association in readers' minds with the industry's profit-driven practices. The incorporation of these pictures is an essential part of FitzGerald's rhetorical strategy, since the pictures strengthen her argument by providing visual reminders of the ideas she posits in her writing.

FitzGerald can be considered a credible authority on her topic. She successfully establishes her ethos through her previous body of work and through references to respected figures in the fields of health, nutrition, and advertising. FitzGerald has written numerous articles for *RevolutionN* as part of her role in the California Nurses Association media branch ("Who We Are"). Her writings cover a variety of nursing and medical topics, examining societal health-related problems, proposing solutions, and encouraging readers to effect meaningful change. For example, in "Inside Job," FitzGerald uses a profile of a nurse working in the California prison system to raise awareness of the deplorable standards and the lagging process of reform in prison healthcare (13, 19). In "The Cause," she explores the effectiveness of breast cancer fundraising efforts, arguing that current campaigns and organizations

are severely compromised by their associations with big corporations (“The Cause” 14–19). The arguments and goals presented in “Pyramid Schemes” are therefore similar to those in FitzGerald’s other articles. This body of work helps to establish her general authority as an investigative journalist by showing her experience. It thus lends support to the points she makes in “Pyramid Schemes.” In “Pyramid Schemes,” specifically, FitzGerald also builds ethos by citing experts in the fields she is examining, like Marion Nestle, a nutritionist, and Susan Linn, a prominent critic of marketing practices (14, 16–17). FitzGerald’s inclusion of these individuals’ works shows that she has done the necessary research into the food industry and food-related issues to supplement her journalistic credentials. She can therefore speak as a reasonable authority on the topic herself. Her success in building her credibility makes her more convincing to readers and enhances the communication of her message.

Although “Pyramid Schemes” is found in a journal that perhaps does not connect with a general audience, the article does reach an important group in the medical community that can provide the base for the movement FitzGerald seeks to inspire. “Pyramid Schemes” is featured in *RevolutionN: The Journal for RNs & Patient Advocacy*, a journal published by the California Nurses Association (National Nurses United). The publication is certainly a niche publication and is unlikely to reach many readers other than the RNs who are association members. That said, to “empower the Average Joe or Jane” to challenge the food industry’s harmful practices, FitzGerald does not need to appeal immediately to every American (“Pyramid Schemes” 17). The community of registered nurses deals with health problems related to the food industry (like obesity, diabetes, and heart disease) in professional life. It is a strong place to start social advocacy because it has inherent credibility

The food industry’s role in American government and American lives is a worthy topic, especially given epidemics of obesity, diabetes, and heart disease linked to the industry’s unhealthy food.

in matters of public health. By raising awareness of the food industry’s sinister practices among RNs and other medical workers, FitzGerald can inspire these individuals to be the foundation of a broader campaign that eventually will reach all levels of society. A potentially limited audience therefore is no detriment to her goals.

The food industry’s role in American government and American lives is a worthy topic, especially given epidemics of obesity, diabetes, and heart disease linked to the industry’s unhealthy food. Erin FitzGerald obviously recognizes the urgency of the situation and seeks to communicate it through her article. To truly effect societal change, a large group of people must be put into motion, including those not already sympathetic to, and perhaps unaware of, the professed ideas

and goals. FitzGerald, with her multifaceted rhetorical approach, seeks to inspire this group action. Starting in the medical community, her article represents a small, necessary step in the journey to rein in the food industry. It is a step that she hopes will raise awareness of the food industry's negative impact on American health and eventually grow into a meaningful movement to arrest the decline in American health.

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Author's Biography

ERIN BYRNES

Erin Byrnes was born and raised in Morris Plains, New Jersey. She is currently pursuing a double major in Finance and Political Science with hopes to attend law school after graduation. A Jersey girl at heart, Erin spends her spare time listening—and forcing others to listen—to Bruce Springsteen and reading almost any book she can get her hands on.

“Exegesis of Mark 1:14–28” examines how the issue of Christ’s authority is implied both rhetorically and symbolically as Jesus forms the basis of His ministry after proclaiming the coming of God’s kingdom on earth. The inspiration for this essay comes from her fascination with examining the Bible in the context of its time period and how that affects the symbolism and stylistic choices made by authors such as Mark.

Erin would like to thank Professor David Ladouceur for submitting her essay to *Fresh Writing*, and for teaching her the necessary techniques to dissect classical texts and literature.

Exegesis of Mark 1:14–28

ERIN BYRNES



In verses 1:14–28 of the Gospel of Mark, Jesus proclaims the coming of God’s kingdom on earth, recruits his first disciples, and conducts his first miracle by healing a possessed man. These three events not only help to create the basis of Jesus’s initial ministry, but leave room for interpretation by the reader on the meaning of the passage and Mark’s intent in presenting it. A detailed exegesis reveals that the concept of Jesus as a figure of authority can be interpreted from the content and structure of verses 1:14–28.

Mark begins the ministry of Jesus by an explicit reference to location in 1:14, saying, “Jesus entered Galilee.” Jesus proceeds to walk by the shore of the Sea of Galilee in Mark 1:16, and cross over to Capernaum in verse 1:21. Jesus’s ministry is thereby strongly tied to physical location, as the setting is specifically named each time Jesus moves to a different place. Movement then becomes a significant theme throughout the Gospel of Mark, with not only change of location explicitly suggesting it, but also being implied through the word choice of Mark in the passage. Many verses begin with the words “then” or “and,” leaving the impression of a quick progression of events occurring in Jesus’s early ministry. Phrases such as “at once,” “right away,” and “quickly” appear frequently throughout these early verses, also suggesting a rapid pace to the movement Jesus undertakes in the passage. Jesus’s words, specifically his proclamation of “the kingdom of God” in verse 1:15, indicate that his movement and his ministry go hand in hand, as the references to location and suggestive adjectives appear to bolster his message of the imminence of the kingdom of God and the need for immediate repentance.

Location also has the ability to take on a symbolic character in Mark, alluding to the intent of the ministry of Christ. It is significant that Mark references the Sea of Galilee in verse 1:16, as the Sea would have acted as a boundary between

Jewish areas to the west and Hellenic areas to the east. The fact that Jesus travels to both sides of the Sea of Galilee could symbolize his commitment to spreading his ministry not only to Jews, but to Gentiles as well, as evidenced by his interactions with Gentiles later in the text (Donahue and Harrington 70–72). Location in the passage also serves to be symbolic of sin, specifically in relation to inside and outside. Whereas the typical Judean would consider outdoor areas more inherently sinful than enclosed areas, the proclamation of Jesus’s ministry, which is inherently good, takes place outdoors, instead of in some sort of building. Likewise, when Jesus performs his first miracle, the exorcism of the man with an unclean spirit in verses 1:23–27, the man, made unclean and sinful by his possession, is found in a synagogue, considered one of the holiest indoor locations in Jewish tradition. Therefore, location is used to implicitly question the Jewish views that attempt to determine holiness based on factors of wholeness, such as the issue of inside and outside.

The quickness and imminence of the first verses in Mark could suggest an apocalyptic character to Jesus’s ministry. By proclaiming that “the kingdom of God is at hand,” Jesus implies a tension between the current and future state of God’s people on earth. The necessity of repentance and faith indicates that life of the Jews will be forced into upheaval, and a new way of living will be adopted. However, verse 1:15 could also be establishing the power that Christ commands in his ministry. Not only are his words forceful, but the calling of the disciples in verse 1:16–20 indicates that people were drawn to something in Jesus’s demeanor, as his first disciples answer the call to follow him immediately and without question (Donahue and Harrington 73–77). Such a response implies inherent power in Jesus’s ministry, as the ordinary person could not persuade others to violate the cultural norms necessary to become a follower of Christ.

Strong faith is assumed on the part of anyone in Mark who chooses to accept Jesus’s message and follow him. By starting his ministry with a call for repentance and faith, Jesus makes faith a central tenet of his ministry above any other issue (Donahue and Harrington 70–72). Unlike the modern association of faith with sheer belief, Jesus’s perception of faith implies loyalty to and trust in both God and Christ as the Son of God. Each time Jesus addresses an audience, there is an implication that he is calling them to have faith in him and in God, due to Christ’s inherent power (Marshall 34–56). There is an implication of commitment to his ministry when Jesus commands Simon and Andrew to become “fishers of men” in verse 1:17. In this instance, Jesus’s strong address acts as the necessary catalyst to call others to faith, by virtue of his authority alone.

The structure of Jesus’s first healing story mirrors the structure of miracle healing stories common in the Hellenistic world of that time. Hellenistic miracles follow

the basic structure of the demonstration of a problem, the solution to that problem in the form of healing, and proof that that problem had been resolved by a miracle, instead of being some sort of illusion or trick. Markan miracles follow this same structure but add details that form the basis of the miracle's message. Jesus's first healing follows the Hellenistic form with the man with the unclean spirit being the problem, Jesus's healing of him acting as the solution, and the expelling of the unclean spirit as proof that Jesus had performed a miracle. The addition takes place in the form of the spirit attempting to gain power over Jesus by naming him in verse 1:24. That Jesus is still able to expel the spirit, despite being put at a disadvantage by having been named, illustrates his incredible power (Achtmeier 157–69). The same power that enables Jesus to exorcise must be present in his teachings, implying that the power of God is directly found in his works and ministry.

*The same power that enables
Jesus to exorcise must be
present in his teachings,
implying that the power of God
is directly found in his works
and ministry.*

Parallels can be found between Mark's gospel and specific texts written during the Hellenistic period. Verses 1:14–20 are written as a literary unit containing three parts, Jesus's proclamation, the calling of Simon and Andrew, and the calling of James and John. Each part represents a different step, where Jesus moves into an area and summarizes his message, interacts with people to develop the discipleship dynamic, and then finally creates a peak in his activity of summoning disciples. This highlights Jesus as a traveling preacher-teacher in a way not seen fully in other Biblical sources, but found in the same three-step manner in Graeco-Roman literature of the same period. Xenophon's *Memorabilia* features a very similar three-step progression, where Socrates first goes to a saddler's shop to recruit Euthydemus as a companion, challenges him again to be his companion in the second part, and finally convinces Euthydemus to answer questions with him in a disciple-like relationship. Whereas the figure of prophets is much more common in Biblical literature, Mark reflects Hellenistic influence in portraying Jesus in teacher-disciple relationships as well. By making him a teacher-prophet hybrid, Mark is able to portray Jesus as having much more power than any Biblical prophet or Hellenistic teacher, giving the ultimate authority to his teachings as the word of God (Robbins 220–36).

Many of the details about the intent of Christ's ministry and his personal traits are suggested in verses 1:14–28 of Mark. While the issue of Christ's power is never explicitly discussed in the passage, the text is rich with implicit references to his authority on levels meant to relate to both Judean and Gentile audiences. Whereas some of these references are symbolic in that they are tied heavily to Mark's word choice and the meaning of Jesus's actions, others are allusions to concepts that

Judeans in an honor-shame society would be familiar with, or a Hellenistic audience would recognize from appearances in contemporary literature. The structure and word choice of the verses also allow Jesus's message that God's kingdom is now present on earth to become the central theme of his ministry and be reflected in his actions throughout the rest of the Gospel. While Jesus's proclamation, recruitment of the first disciples, and first miracle healing are relevant in that they form the first actions of his new ministry, when viewed critically, it becomes apparent that the issue of Jesus's authority, where it is derived from, and how that affects his role as a teacher and leader are potentially the more important issues implied, but not discussed, in this passage.

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Author's Biography

GRETEL KAUFFMAN

Gretel Kauffman is from Elba, New York. She is not quite sure of her major yet, but is leaning toward either English or American Studies. When she is not in class, she can be found either working on the yearbook or working as a literacy tutor through the Robinson Community Learning Center. She intends to pursue a career in the journalism field after graduation. Her essay "The Mystery of Sight" explores the many different ways that the concept of sight has played a critical role in various mystery stories over the years, from Oedipus to Sherlock Holmes. She would like to thank her freshman seminar instructor, Professor Margaret Doody, for all of her guidance and assistance throughout the writing process.

The Mystery of Sight

GRETEL KAUFFMAN



To fully appreciate the power of sight in a mystery novel, one must first ask, “What is sight?” Is it the simple act of seeing physical objects with one’s eyes? Is it knowledge of things unseen? Is it knowledge of the past? Of the present? Of the future? Is it the ability to predict and analyze events and their consequences? This is a question that has fascinated many writers over the years, and one that has been explored in a wide variety of works. Sight is an underlying theme in a multitude of mystery novels; although there are different degrees of subtlety to its presence, the concept can be found in practically any story that centers on the unknown.

This concept of sight, or lack thereof, manifests itself in our fear of the sublime. In his essay “The Sublime and the Beautiful,” Edmund Burke explains the power of the former, saying that, “To make anything very terrible, obscurity seems in general to be necessary, for a great deal of apprehension vanishes when we are able to see the full extent of any danger.” In many ways, our greatest fears lie not in what we know, but rather in what we do not know. When we are able to see our enemy clearly, we are able to see its flaws and weaknesses clearly.

However, when we cannot ascertain the weaknesses of our opponents, we cannot confidently defend ourselves. Therefore, when we are not able to see our danger, our imagination automatically assumes the worst. This phenomenon can be seen in *The Blair Witch Project*, a film which is driven by the power of the unknown. The use of angles and perspective, as well as first-person-style camera work, creates a viewing experience that

is unlike most others. We see precisely what the characters are seeing, and no more than that. The characters are unaware of what is lurking in the woods—and so are we. Is it a human? A spirit? A monster? As the Blair Witch is an ambiguous evil

We see precisely what the characters are seeing, and no more than that. The characters are unaware of what is lurking in the woods—and so are we.

rather than a concrete object or person that we can see and analyze, we do not have any idea how to overcome her. *The Blair Witch Project* is a terrifying and effective film not because of the disturbing things we see, but rather because of the disturbing things that we do not see.

The power of sight in movies can not only frighten us, but can also trick us. In Christopher Nolan's film *Memento*, the viewer is manipulated not by the way physical objects are revealed on the camera with angles, but with the way information is given to us through the nonlinear plot line. At the start of the movie, the audience is given a certain impression of all the characters. Lenny is shown as a good-hearted man who is nobly trying to avenge the death of his wife, Teddy is portrayed as a potentially dangerous, deceptive criminal, and Natalie seems like an innocent woman who wants nothing except to find out who killed the love of her life. However, as the film progresses and the backgrounds of the characters become apparent, we realize that they are not at all who they originally appeared to be. Teddy is a helpful police officer, Natalie is a scheming, manipulative liar, and Lenny is a selfish and dangerous murderer. Because we can only see what Lenny sees and his memory is damaged, we are only exposed to several events at a time and not in a traditional way. However, as the film allows us to see more and more of the characters' backgrounds, our "vision" of the story clears up and we are able to see things how they truly are. In this sense, the "sight" in the movie does not take the form of traditional eyesight—the angles are straightforward, and we are able to clearly see all of the spaces and characters—but rather knowledge.

Agatha Christie's *The Murder of Roger Ackroyd* plays with our minds in a similar way, manipulating us through the power of vision and point of view. Although all the evidence necessary to deduce who murdered Roger Ackroyd is offered up to us clearly, our minds only allow us to see what we want to see. The narrator of a story, particularly when told in first-person, acts as our eyes. They expose us to all the facts and events within the story. We see the story unfold exactly how they see the story unfold. For these reasons, we are accustomed to trusting our narrator (and our doctor). It is a disturbing thought that our eyes might somehow deceive us—if our eyes deceive us even just once, we must constantly question the difference between reality and delusions. Our entire perception of the world is thrown off, and we cannot trust anything to be true. We even begin to question our own sanity. Because this concept is so frightening to us, we choose to fully trust and rely on our eyes. We take what they show us to be reality, and do not question it. The same concepts apply to narration. If we cannot trust our narrator, we cannot trust any part of the story to be true. Therefore, when we discover that our narrator has deceived us, we are surprised and taken aback. The brilliance behind *Roger Ackroyd* lies in the way that while our narrator did not deceive us—he openly presented the facts and was never directly dishonest in his telling of the story—he did manipulate our minds and cause us to view the story in a distorted way.

Similar assumptions and manipulations of vision are employed in Edgar Allen Poe's short story *The Purloined Letter*. When the police search the home of Minister D, the suspected thief of the scandalous letter, they assume that he must have hidden it in a secretive, carefully protected spot. Although the letter is in plain view, the solution does not even occur to them because they have trained their brains to believe that something hidden could not be in an obvious spot. Much like the reader of *Roger Ackroyd* assumes that the murderer must be hidden away in an unfamiliar place, the police assume that the letter could not possibly be right under their noses. However, Dupin realizes that in order to solve a mystery, one must abandon traditional thought processes. By thinking "outside the box," he is able to locate the letter and return it to its rightful owner.

The use of sight in mystery novels is oftentimes manifested in the sight capabilities and consequential knowledge that the reader is exposed to, such as in the aforementioned examples of *The Blair Witch Project* and *The Murder of Roger Ackroyd*, but the literal concept of eyesight has also found itself playing an integral role in many detective stories over the years. A prime example of this is what is widely considered to be one of the first, and greatest, mystery stories of all time: *Oedipus Tyrannus*. Sight is a continual theme throughout Oedipus's life, beginning at the very start of his life when a prophecy is made which predicts his terrible destiny to murder his father and sleep with his mother. In the context of *Oedipus Tyrannus*, sight is symbolic for knowledge. The Oracle of Delphi, who made the prediction, was able to see the true and inevitable future long before anybody else could. When King Laius is exposed to this vision and can see the future clearly, he takes action by getting rid of the baby. Ironically, this impairs the vision of both himself and his child, as neither one is able to see the true identity of the other. If he had allowed the baby to stay in the castle and given it a normal upbringing, the prophecy would never have come true. Oedipus would never have slain Laius on the road if he had been able to recognize him as his father, but as he was blind to this relationship between them, he did not bother to spare his life, thus fulfilling the prophecy. The theme of sight returns with the introduction of the blind prophet Tiresius. Although his eyes are not able to see, his mind has far better vision than Oedipus could ever hope to have. He is the only one who is not blind to the travesty that is Oedipus's story. However, with sight comes responsibility and misery. Tiresius realizes this, and does not want to bring upon the royal family the inevitable guilt and shame that comes with the truth. Because he refuses to enlighten him, Oedipus becomes enraged and declares that Tiresius is the blind one. But when he finally is enlightened and is able to clearly see his own identity, he wishes he could not. It is this remorse and shame that causes him to stab his own eyes in an attempt to rid himself of the ability to "see" his past. It is as though he believes that by getting rid of his sight, he can somehow rid himself of the knowledge he has just acquired.

Eyes take on yet another crucial role in E.T.A. Hoffman's short story "The Sandman." The first way in which sight affects the story is in the narration. Nathaniel has distorted visions of reality, and because we only see the story from his point of view, we are forced to accept these distorted visions as the truth. While we suspect that he may be delusional, we are not offered any other point of view and therefore have no way of confirming that his sense of reality is not accurate. The only other character whose thoughts are revealed to us is Clara, Nathaniel's sensible fiancée. However, Clara is not present for the majority of the events that Nathaniel describes, so while she can question his sanity, she cannot truly confirm for us that these happenings took place only in Nathaniel's imagination. As a result, a sort of sub-mystery is formed within the story—the mystery of Nathaniel's sanity. The fact that we are seeing the events at the start of the story unfold through the eyes of a child further complicates matters, as children oftentimes exaggerate and have wild imaginations. However, even as Nathaniel progresses into adulthood, this "wild imagination" does not go away. He continues to believe that all of the events that he experienced as a child actually took place, and that Coppelius is after him still. At the end of the story, his eyes deceive him one last time as he imagines that Clara has turned into Olympia, the automaton, and he attempts to throw her off of a tower. This is the only event which presents Nathaniel as being completely insane, but it is unclear whether he has always been in this state and has imagined the previous events in the story or whether he has been made this way by the actual occurrence of the aforementioned events. Our attempts to distinguish reality from fantasy contribute to the confusion created within "The Sandman" and make it a more effective and enthralling story.

Literal eyes have their place in "The Sandman" as well and are a prevailing theme throughout the story. During Nathaniel's youth, he has a frightening encounter with his father's friend Coppelius, during which Coppelius supposedly attempts to steal his eyes for use in an alchemic experiment. This is the first event that Nathaniel describes that the reader calls into question. Did Coppelius truly attempt to steal Nathaniel's eyes? Were his "eyes" supposed to symbolically represent something else? Or did Nathaniel simply imagine the whole encounter? The eyes of the doll, Olympia, are also integral to the story. Nathaniel believes he is in love with Olympia and feels the strongest connection to her when he looks into her eyes. He believes that her eyes reveal her innermost thoughts and feelings; in them he sees great understanding and depth of personality. However, this is an illusion. Her eyes are not a window to her soul, they are a mirror to his—she is not capable of truly thinking or feeling, and the thoughts and personality he sees in them belong to him. He projects his own mind onto Olympia because he is desperate for love. This demonstrates how deceitful eyes truly can be—they can allow us to see only what we want to see, rather than what is truly there.

For some detectives, such as Sherlock Holmes, seeing is not merely the physical act performed by the eyes, but rather a process which involves analyzing those things which are physically seen. He is able to see an object and instantly make deductions about it—for Holmes, sight and knowledge are neither synonyms nor independent of each other but rather two concepts that go hand in hand. In Conan Doyle's novel *The Study in Scarlet*, Holmes and his "sidekick" Watson meet for the first time. By simply looking at Watson, and with no background information whatsoever, Holmes is able to deduce that his new acquaintance is a former military doctor who has recently returned from war due to injury. This first exposure to Holmes is a prime example of his tendency to use his sight to the best of his ability. By noticing the small details and truly looking at objects and people rather than just seeing them, he is able to "see" facts and history that cannot be literally viewed with the eyes. Ironically, although Holmes can easily tell a great deal about a person just by looking at him or her, the reader is never able to see inside the mind of Holmes to discover his past and inner workings. This is mostly due to the fact that Doyle chose Dr. Watson to narrate the tales rather than Holmes himself. Watson is of slightly above-average intelligence, but does not possess the amazing analytical skills and insight of his partner. He sees what the typical reader would see if thrown into the situation—the facts, the physical evidence, and little more. This point of view keeps Sherlock Holmes a mystery—if the stories were narrated in the first-person by Holmes, who is able to come up with the solution to each mystery long before he reveals it to the other characters, much of the suspense would be gone. This would also affect the way the reader views Sherlock Holmes himself. As the stories are, he or she sees Sherlock Holmes as something of a genius. He is interesting to us because he is not a typical human being. He does not think like the majority of normal people do, and this fascinates us and excites our curiosity. However, if we were allowed to get inside Sherlock Holmes's head, his character would not be able to keep us on our toes as effectively. We would no longer constantly be wondering what he was thinking and how on earth he came up with such accurate deductions. The mystery of Holmes himself and how his mind works would be gone, and the stories would lose much of their appeal.

The concept of sight (and lack thereof) fascinates and sometimes frightens us, and it is human nature to be curious about the unseen. However one chooses to define sight—whether it stems from the eyes, the brain, or some ethereal source—it is undeniably an integral theme in the mystery genre.

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Author's Biography

BRENNA CASHMAN

In her essay “The Sirens and Odysseus the Broken Hero,” Brenna Cashman, a Chemistry major and Marine option in the Naval ROTC currently living in Stuttgart, Germany, re-examines the character of Odysseus through the lens of the enigmatic song of the Sirens. While Odysseus is presented as a paragon of perfection and Greek masculinity, the Siren’s song implies that he is, in fact, a very human hero who must first re-discover his own identity and come to terms with the horrors of the battlefields of Troy and his travels before completing his journey and returning home. Brenna was intrigued by Odysseus’s ostensibly transcendent nature and was inspired to explore the more human aspects of the epic hero’s character. After graduation, Brenna plans to commission as an officer in the U.S. Marine Corps and possibly pursue an advanced degree in Chemistry at a later date.

The Sirens and Odysseus the Broken Hero

BRENNA CASHMAN



Temptation plays a key role in *The Odyssey*: many of the characters, from minor crew members to the great Odysseus, by turns succumb to and overcome their desires. One of the most notable instances of temptation comes in Book XII with the song of the Sirens, whose call is said to be so seductive as to cause any sailors who hear it to crash on the craggy shores, leaving no survivors. Forewarned of the danger by the witch Kirke, Odysseus orders his crew to fill their ears with beeswax and lash him to the mast so he may hear the song safely. While Odysseus and crew successfully ignore the allure of the song and survive the encounter, it is not so much his reaction to the song but rather the content of the song that is of interest. The Sirens choose to lure Odysseus to their deadly shores not with the promise of wealth or other temporal pleasures, but with the offer of boundless knowledge, knowledge specifically of the siege of Troy. That the Sirens try to entice Odysseus with the offer of tales of what happened on the battlefields of Troy implies that Odysseus is still a damaged hero who must re-discover his own identity and come to terms with the horrors of the battlefield and his travels before he can complete his journey and return home.

The Sirens begin their perilous song on the expected note: after calling Odysseus to them, they prompt him to “Moor and be merry” (XIII.224), and refer to the other seafarers who have succumbed to their call. The third stanza, however, offers something unexpected in the way of temptation: “Sea rovers here take joy / Voyaging onward, / As from our songs of Troy / Grey beard and rower-boy / Goeth more learned” (XII.232–236). Rather than offer him traditional objects of appeal, they attempt to lure Odysseus with the promise that he might “[go] more learned” from their “songs of Troy.” This seems a peculiar offer, particularly as Odysseus himself fought at Troy and so should not have to be told of the events. The Sirens’ choice of such tales to

lure Odysseus implies that Odysseus has not yet fully come to terms with the time he spent at Troy, and that he seeks to relive the events of the war in order to better comprehend all that happened there.

Indeed, Odysseus does appear particularly drawn to reliving the events of Troy, as seen in Book VIII. In the home of Alkinoos, the bard Demodokos begins to sing of the clash of Achilles and Odysseus. The song causes Odysseus so much pain that he “[draws] his rich mantle down/ over his brow, cloaking his face with it/ to make the Phaikians miss the secret tears” (VIII.90–93). Yet in spite of the fact that the tales cause him pain, Odysseus later approaches the bard and prompts him to “sing that wooden horse / Epeios built, inspired by Athena— / the ambushcade Odysseus filled with fighters / and sent to the inner town of Troy / sing only this, this for [him]” (VIII.525–529). Although the story is enough to move him to tears, an emotional reaction that runs the risk of revealing—and indeed does reveal—his previously

concealed identity to his hosts, Odysseus still succumbs to his desire to relive his past by hearing it. Similarly, he is drawn to the Sirens’ offer to tell him more of Troy.

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In the next stanza, the Sirens continue to boast of the knowledge they might offer Odysseus. As they become more specific, it appears as though they are appealing more and more to Odysseus’s particular desires. They claim to know of “All feats on that great field / In the long warfare, / Dark days the bright god willed, / Wounds you bore there” (XII.237–240). That Odysseus might be so tempted to go to the Sirens who claim to understand all of

what happened indicates that Odysseus may still be seeking the company of those who understand what he went through, and may be reluctant to return home to those who never saw such battles. Ostensibly he is whole-heartedly devoted to his goal to return home to his wife and home, but Odysseus does take some unnecessary stops on his return journey. He opts to remain at the home of Aiolos for a month rather than press onward immediately. He and his crew remain for a year with Kirke, even after she has transformed his crew into swine. Such behavior is not necessarily indicative of a lack of dedication to the quest to return home, but it does indicate that Odysseus has not fully escaped the horrors of the battlefield and that he might be enticed by the idea of remaining with the Sirens who claim to sympathize.

The Sirens' reference to the "Wounds [he] bore there" is open to varied interpretation. While Odysseus surely received physical wounds in Troy, no explicit reference is made to any such wounds on his body. Rather, while physically fit, Odysseus has not yet fully recovered from the mental trauma sustained there. At several points in the epic Odysseus is portrayed not as a resolute, near-transcendent hero, but as a weary man worn and beaten by his travels. The description of Odysseus toward the end of his imprisonment on Kalypso's island, with "tear on tear / brimming his eyes" as he sits "on the rocky shore and [breaks] his own heart groaning" (V.158, 164), is hardly the picture of an unbroken hero determined to return home. In his interactions with the Phaiakians, he goes so far as to introduce himself as a "man of pain." When challenged by a young Phaiakian to join in their competition, he rebuffs the offer claiming that he "has more on his mind than track and field; / hard days and many have I seen and suffered. / I sit here at your field meet, yes; but / only as one who begs your king to be sent home" (VIII.162–164). Odysseus is still preoccupied, not only by the task at hand but by his past hardships. His preoccupation makes it difficult for him to adapt to and rejoin civilian life and to connect with people who did not experience the same hardships. His still-wounded mind does not allow him to reintegrate fully into civilian life. This alienation prompts the Sirens to exploit his desire to be with someone who understands his wounds.

The final stanza of the song suggests again that Odysseus still dwells on Troy and on his comrades who fell there. The Sirens sing of "Argos's old soldiery / On Troy beach teeming, / Charmed out of time" (XII.241–243), the knowledge of whom Odysseus has already sought in the Underworld. During his trip to the Underworld, Odysseus encounters the shades of a number of his old comrades, yet while recounting his tale to Alkinoos he initially describes only his meeting with the shades of his mother and a line of princesses. It is not until Alkinoos prompts him, asking: "among the dead / did you meet any of your peers, companions / who sailed with you and met their doom at Troy?" (XI.430–432). It is strange that Odysseus might leave out the comrades he met, considering that they too are figures of legend in their own rights. Odysseus's reluctance to discuss his fallen brethren with relative strangers suggests that he might still dwell on their deaths without an appropriate means to achieve closure. The Sirens' mention of the dead as a temptation, after they have already suggested that they understand Odysseus's pain, supports the notion that Odysseus has yet to fully come to terms with the events of the Trojan War.

The Sirens' claim to know of the fallen is especially poignant because Odysseus has met many of his fallen comrades in the Underworld shortly before encountering the Sirens. In the Underworld, Odysseus is similarly compelled to seek out the dead to learn more of their deaths and of their afterlives. While he converses at length with old friends such as Agememnon and Akhilleus, his interaction with a soldier who

refuses to converse with him is much more telling. Odysseus actively seeks out the shade of Aias, a man with whom he had quarreled and who later committed suicide. He craves Aias's forgiveness even after Aias's death, asking: "you would not forget, even in death / your fury with me over those cursed calamitous arms?" (XI.659–660). The shade of Aias turns away wordlessly, refusing to absolve Odysseus or assuage his guilt. In light of these prior events in the narrative, the Sirens' attempt to lure Odysseus with words of his dead comrades suggests not only that he may have been profoundly affected by the loss of them, but also that he feels some degree of personal guilt or responsibility for their deaths.

The peculiar song of the Sirens hints at the depth and emotional complexity of the ostensibly simple epic narrative. The song casts a new light on much of the story and humanizes the character of Odysseus. No longer does Odysseus appear as a superhuman, near-deific hero who emerges from the Trojan War glorified and unharmed. Rather, he is a great warrior but a deeply wounded, thoroughly human one.

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Author's Biography

KEITH LOH

Keith Loh is a Science-Preprofessional major from Poughkeepsie, New York. Following his years at Notre Dame, he plans on taking a year to volunteer in South America before medical school. "The Necessity of a Moratorium" was written to emphasize the value of life, an immeasurable quantity that he believes is too often taken for granted. He would like to thank his professor, Monika Grzesiak, for all of her guidance and the role that she played in his writing development. To all of the first-year students, Keith would like to impart the first most important lesson learned during his own freshman year: Study twice as much as you think you need to because that is actually the correct amount. Good luck and go Irish.

The Necessity of a Moratorium

KEITH LOH



The death penalty is a highly controversial topic, and nowhere more so than in Texas. The movement to place a moratorium, or legal pause, on the death penalty process is nearly as polarizing a subject as execution itself. In the article “System is Fair, Just; No to a Moratorium,” author Dudley Sharp III opens with the statement that criticisms against both Texas and the United States for their use of the death penalty are unwarranted. Sharp argues that Texas takes nearly 13 years to execute capital murderers after sentencing, a period longer than the national average, and has an overturn by appeal rate less than half that of the national average. He cites these statistics to support the claim that the death penalty process in Texas is a careful, reflective effort, and as such, no additional moratoriums on the death penalty are necessary. Sharp states that “Concern for innocents convicted and racism appear to be two main issues within the moratorium movement.” He attempts to demonstrate that these concerns are unfounded with more statistical evidence, and continues on to address the validity of criticism from foreign nations, particularly those in Europe. Although Sharp does attempt to address the argument with the opposition’s perspective in mind, he fails to argue convincingly against all counterpoints by providing misleading evidence and overlooking arguments, most notably those against the risk posed to innocents if the convicted criminals are not executed.

In the article, Sharp first addresses the notion that Texas’s death penalty process is flawed by comparing the state’s 15 percent overturn rate to the national average, which hovers around 33 percent. This argument is not persuasive because the statistics provided are not demonstrative of an infallible system. The fact that an overturn by appeal rate even exists prompts the question, “Given different circumstances or a longer process, would more cases be found not guilty?” Sharp does make

the assertion that the statistics do not differentiate between those who were factually innocent and those who were legally innocent. The primary argument is founded on the claim that the system is just, yet here the article frowns upon those who are only declared legally innocent. Unfortunately for Sharp's argument, the legal system in the United States does not make the same distinction—innocent means

Unfortunately for Sharp's argument, the legal system in the United States does not make the same distinction—innocent means innocent.

innocent. Sharp downplays the possibility of wrongful conviction by adding effective commentary to his statistics, but the statistics speak for themselves, and they favor a moratorium on the death penalty.

Later in the article, Sharp makes the largely unsubstantiated remark that many innocents would be put at risk by not executing these criminals, despite much evidence to the contrary. This statement has

several flaws; for one, execution is not the only way to remove a body from the general population. Life without the option of parole is also a possible solution and is in fact much cheaper than execution. The California Department of Corrections and Rehabilitation's Annual Report in 2010 detailed positive progress made by inmates, including the nearly 6.8 million work hours completed on wildfires by inmate fire-fighters, as well as reduced rates of recidivism for offenders completing in-prison substance abuse programs. Furthermore, a 2003 legislative audit in Kansas estimated the cost of an average death penalty case to be 70 percent more expensive than the cost of a comparable non-death penalty case. Another counterpoint is the positive effect that rehabilitated inmates can have in society. Both of these examples are economically viable, as well as risk minimizing solutions to the inmate problem.

One of Sharp's final arguments is against the criticisms coming from foreign nations, particularly those in Europe. His main point is founded on one survey conducted by the New Republic, which "confirms that the majority of the European population does support executions for vile crimes." Such an overarching conclusion should be supported by multiple surveys to ensure validity. He goes on to assert that the European Union is hypocritical because while its members must abandon execution in order to join, there is no such ban during times of war. The article ignores the fact that more often than not, war presents cases with extenuating circumstances that must be viewed through a different lens.

Dudley Sharp makes a strong case against a moratorium on the death penalty, but ultimately his argument is weak due to unfounded assertions and a one-sided view of the issue. Careful examination of his arguments and their counterpoints show that a moratorium on the death penalty is far from unnecessary and can in fact be morally just and also economically efficient. Sharp does make his claims out

of concern for the common good, but his take on the death penalty leaves little margin for error. A moratorium on the death penalty would help to ensure that the justice promised to the citizens of the United States by the Constitution is served.

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Author's Biography

DANA BARLOCK

Dana Barlock, a native of New Jersey, is currently majoring in Biochemistry with a minor in Studio Art. After graduating from Notre Dame, she plans to attend graduate school and creatively blend the two disciplines in her future career. Her research paper “Growing the Obesity Epidemic through Genetic Modification” reveals the unnerving connection between the genetic modification of corn and the prevalence of obesity in America. Inspired by her long-held interest in genetics and food science, Dana outlines a significant, indirect cause of this epidemic using both an economic and physiological framework and offers suggestions for the responsible use of such technology. She would like to thank her Writing and Rhetoric professor, Dr. Erin Dietel-McLaughlin, for her invaluable guidance on the writing process and librarian Elizabeth Van Jacob for her thorough instruction on effective research in the extensive gallery that is the Hesburgh Library.

Growing the Obesity Epidemic through Genetic Modification

DANA BARLOCK



The world is ever changing, as is our understanding of it. Over millennia, species have evolved naturally, be they the fittest to survive in a given environment. The distinct yet cumulative efforts of scientists such as Darwin and Mendel brought about a full understanding of the mechanisms by which natural selection occurs. Darwin theorized that natural selection of individuals dictated the evolution of population overall, and Mendel's discoveries led to our understanding of the connection between genes and expressed traits in an individual organism. Together, with some later research in the early 1900's on the mechanisms of meiosis (gamete formation), their discoveries meant that the physical traits that we each possess, making us better or worse suited for our environments, come from the genes within our DNA, passed on to us from our parents. This indicated that genes (genotype) were the key to controlling physical attributes (phenotype), but it was not until the recent advances in technology that scientists began to harness the power to manipulate genes (Sadava et al. 237–238).

With this power, scientists began to approach former obstacles, specifically ones dealing with the efficiency of agricultural production, in an entirely new way. Before this breakthrough regarding the genetic determination of plant characteristics, farmers were forced to settle with the faults found in the genetics of plants that made them less than ideal in some way or another to reach maximum crop yield, and they had to uneasily depend upon external treatment methods to resolve dilemmas such as pest infestations or loss of entire crops due to unexpected and brutal frosts. The ability to successfully perform gene manipulation has marked a dawn in scientific achievement, as solutions to such complications can now be sought internally, within the very genome of a plant organism: a much more direct and thus effective resolution to what were sometimes quite complex and sometimes

baffling problems. After all, how does one address the problem of a potential, yet lethal frost, without incurring year-round maintenance costs to protect a crop for the duration of only a few unfortunate hours? Or how can one find a balance in the development of herbicides that will not damage the crop itself or the consumers through secondary consumption while still killing off weeds that will out compete the crop for sunlight and nutrients?

Corn, being one of America's biggest cash crops, has become one of the primary targets of genetic modification (Wang and Brummer). Corn derivatives can be found in "half of the 45,000 different foods sit[ting] in the average U.S. supermarket, according to author and journalism professor Michael Pollan," making corn an unavoidably large portion of the typical American diet ("List of Foods with Corn Derivatives"). Corn derivatives include cornstarch, corn oil, corn syrup, and even lesser known derivatives such as maltodextrins, and can be used in a variety of processed foods including cake mixes, candy, snack foods, cooking oil, sugary drinks, instant soups, margarine, coffee, and tea, just to name a few ("List of Foods with Corn Derivatives"). Even meat products that do not directly contain corn derivatives are affected by its abundant use in the food industry as "the vast majority of cattle spend anywhere from 60–120 days in feedlots being fattened with grain before being slaughtered" ("Is Your Meat Safe?"). Considering that "meat from a grass-fed steer has about one-half to one-third as much fat as a comparable cut from a grain-fed animal," it is certainly safe to say that corn has either a direct or indirect effect on the composition of many of the common food items in the grocery store ("Is Your Meat Safe"). It is not surprising then, that genetic modification has targeted corn for improvements. These improvements can only benefit an already booming industry, and the potential for increased profit margins generally does not go unnoticed by opportunistic entrepreneurs.

Through an assessment of the economic effects of genetically modified (GM) foods on the corn industry and the science behind metabolism as affected by the exceedingly high intake of corn in the typical American diet, this essay will discuss the impact that the development of genetically modified corn has had on the obesity epidemic in America. Ultimately, the development of GM corn has thus far had a negative impact on the health of Americans, as it supports the onset of obesity in Americans of all ages through both the economic and secondary health related consequences of GM food production. Further assessment of the complex and addictive nature of corn-based foods demonstrates why understanding this problematic connection to obesity should become a priority. This damaging connection must be addressed immediately in a joint effort of biotechnology companies and the government as it carries weight not only for the present generation, but also for our posterity.

In order to understand the economic effects that genetic modification has had on the corn industry, one must first understand the previous economic state of corn production through the economic principles that control it. In many industries, supply and demand economics plays a key role in determining production level. Like in other industries, supply and demand economics restrains overproduction of agricultural crops because supply and demand are inversely related. As the supply increases, the demand for a product drops, and the prices decrease accordingly. Thus, when overproduction occurs, greatly increasing the supply, demand and prices decrease drastically, and each unit of corn sold is worth much less than when corn was less abundant. This diminishes farmers' incomes as they cannot make significant gains upon selling even the highest quantities of corn.¹ Supply and demand economics no longer applies to the American corn industry,

Supply and demand economics no longer applies to the American corn industry, however, because government subsidies of corn production have been in place for decades now.

however, because government subsidies of corn production have been in place for decades now, with "U.S. taxpayers subsidizing American farmers generously—to the tune of \$20 billion a year" as of 2004 (Roston). Government interference in the form of subsidies changes this inverse relationship, allowing farmers to continue to increase their production without the drop in profit margins, as the government pays farmers the difference in losses that occur as a result of overproduction ("Effect of a Subsidy"). Therefore the farmers are not negatively affected because they still make sustaining profit levels, and, since the lack of demand has driven the selling price so low, consumers benefit from the resulting inexpensive food supply. Thus subsidies were initially implemented in order to ensure the presence of an inexpensive yet reliable food supply for the poor. Corn filled their bellies, without completely emptying their pockets.

However, this quick fix has spiraled out of control in the past years as corn has made its way into a large portion of the foods found in grocery stores around the nation owing largely to the greed of corporations. Corporations, seizing the opportunity to greatly increase profit margins have creatively found ways to replace ingredients with comparatively inexpensive corn derivatives in as many of their products as possible. Making this switch significantly lowers their expenses, allowing these businesses to maximize profit margins even while somewhat lowering the final price of their product to gain a competitive advantage over other companies in the market. For example, "the ease of use and low cost of high fructose corn syrup (HFCS) make it a very attractive sweetener" in comparison to more expensive cane sugar

¹ See Whelan and Msefer for an overview of supply and demand economics.

(“List of Foods with Corn Derivatives”). Corn oil is also “typically less expensive than other cooking oils” making it useful for increasing profit margins (“List of

Corporations, seizing the opportunity to greatly increase profit margins have creatively found ways to replace ingredients with comparatively inexpensive corn derivatives in as many of their products as possible.

Foods with Corn Derivatives”). Meat corporations have sought out similar advantages from feeding a corn-based diet to their cattle. Here they benefit from advantages such as quicker weight gain than grass-fed cattle, feasibility of year-round production, all while contributing less money and time toward growing the cattle (“Is Your Meat Safe?”).

GM corn enters the picture, and the economic advantages of using corn derivatives are amplified even further because genetic modification allows even a higher crop yield to be cultivated, increasing the supply, and even further decreasing the selling

price of corn. Thus, corn prices are lowered in the primary sector (raw material production) due to an even more extreme result of subsidized supply and demand economics, and further lowered in the secondary sector (production of refined product) where manufacturing corporations benefit from economies of scale as they decide to incorporate even more corn into their products because the low expenses are an irresistible path to higher profit margins. *Economies of scale* “refer[s] to the situation in which the cost of producing an additional unit of output of a product decreases as the volume of output (i.e., the *scale* of production) increases” (“Economies of Scale Definition”). Thus, higher crop yield of corn leads to reduced prices in the primary sector, which leads to increased use of corn in the secondary sector, which ultimately leads to simultaneous maximal profit in the secondary sector, and the lowest possible prices for consumers.

Because “crop performance in the field, defined as yield, is...affected strongly by environmental factors, soil type, and external agents such as pests and disease... biotechnology methods can lead to increased yield by creating plants with attributes that optimize exploitation of specific environments” (“Plants” 47–48). Higher crop yields thus become feasible as factors that interfere with reaching maximal crop yield are targeted directly through genetic modification of the plant itself as opposed to being targeted indirectly through older external treatment methods which usually involve changing the environment around the crop to better accommodate its needs. It is much more difficult and less effective to alter the surrounding environment with all its complexities, especially without negatively affecting ecosystems which consist of many highly interdependent components. Therefore external treatment methods quickly become costly, still with no guarantee of success. With emerging biotechnologies, scientists specifically concentrate their efforts on

characteristics such as “increased tolerance to drought, salt, cold, heat, herbicides, acid/alkali environments, and metals in the soil; resistance to disease and pests; increased nitrogen utilization; and increased photosynthesis/respiration efficiency” (“Plants” 47). These solutions are much more effective as their success lies in the successful expression of a gene in the plant itself and not on a technique attempting to change a complex environmental factor for the better. Therefore the success depends on the level of control. Scientists have much more control over engineered genes than they do over unpredictable and complex environments. As a result of the success of GM corn, the crop yields of corn have increased, which has, again, further incentivized corporations to use it as an ingredient in order to reach maximal profits.

This is beneficial for corporations and consumers in monetary terms, but if one considers the impact on consumers’ health, a more grim side of this reality emerges. With corn being in so many grocery store foods, and being so inexpensive, many people are buying and consuming these products on a regular basis as a significant part of their diet. Corn is a starch that is immediately broken down into simple sugars by the human body. These sugars enter the blood stream after absorption in the small intestine and are either immediately metabolized for some current energy-requiring process occurring in the body or are stored as glycogen (fat) should there be sugar molecules in excess of what is immediately required (“Starch and Sucrose Metabolism”). This process of energy storage via the conversion of sugar molecules to glycogen is one of evolutionary significance, which allowed humans to live for some period of time without a food source should food be scarce during certain times of the year or in certain locations when migrating. It was an evolutionary adaptation for survival.² However, the consumption-driven society that exists today hardly requires this adaptive survival trait, as food sources are abundant and conveniently located at the local grocery store. Because corn is now such a large portion of the typical American diet, people are consuming this starch in excess, with much of it being stored as fat and leading to widespread obesity. Thus, GM corn is indirectly increasing the occurrence of obesity in America through the economically incentivized increase in corn additives used in food production.

Now many of these corporations would argue that consumers have a choice in the foods and quantities of starch that they are consuming, and by the rights and freedoms allotted by the Constitution they do. But looking at the bare facts, many consumers, especially the poor and those hit hard by the sinking economy, are forced into these unhealthy consumption habits by economic constraints. They simply cannot afford the healthier, less processed foods, which are more expensive

² For a description of the evolutionary significance of fat storage see “The Evolution of Our Diet.”

because their industries are smaller and do not benefit from the government subsidies or the advantages of genetic modification like the corn industry. In the case of wealthier consumers who can afford the healthier foods, even they fall prey to overconsumption of simple sugars because these highly processed corn based foods taste delicious. When corn is added to foods as filler it does not increase the quality of the food in terms of taste, so companies add flavor enhancers to mask the bland corn product with supplements that humans are known to crave, specifically sugar and salt. Humans crave sugar because it elicits a pleasure response in the brain via activating the release of dopamine, a mood affecting neurological chemical (Drewnowski 52–60). Thus, consuming these corn-based foods becomes somewhat of an addiction in which people, poor or wealthy, crave these foods, increasing their overall consumption of these foods. Because this positive feeling achieved from eating sugary or salty foods combats stresses by temporarily decreasing tension in the body, people under a lot of stress are even more susceptible to developing such an addiction. The consumption of these foods becomes a cyclic trap in the stressful lives of many Americans due to a number of factors including the state of the economy and job stress. Once people become dependent on these foods, these corporations can hardly speak of freedom of choice.

Many nutritionists argue strongly that high fructose corn syrup (HFCS) alone is contributing to the rise of obesity because HFCS is so commonly used as a sweetener. GM corn has lowered the price of HFCS to the point where it is a less expensive alternative to natural sugar cane. And as it is “cheaper, sweeter, and because it is a liquid, easier to transport and mix into foods than sugar,” HFCS is decidedly affecting the diets of all Americans by greatly contributing to their sugar intake as they consume more and more inexpensive foods with HFCS (Roston). Corn refiners try to avoid blame for this development “not[ing] that in countries that consume almost none of the syrup, such as Mexico and Russia, obesity is still a problem” (Roston). However, their argument does not prove that HFCS, and thus genetic modification, is not contributing to obesity. In fact, there is evidence that overconsumption of sugar does cause obesity through fat storage. And despite the insistence by corn growers and refiners that scientific evidence suggests that the body processes sugar and high-fructose corn syrup identically, the argument about the difference between HFCS and sugar is irrelevant to diagnosing the connection between GM corn and obesity (Weise). Assuming that HFCS and sugar act the same in the body, the argument for GM corn correlating to the increase in obesity revolves around the fact that sugar intake, no matter the form, is increased, thus causing obesity. In fact, because HFCS is less expensive, which has contributed to an increase in its use, HFCS could be directly blamed for obesity rather than sugar,

not because of a difference in its chemical qualities, but because of its economic feasibility in the marketplace.

In conclusion, GM foods have accelerated and increased the occurrence of obesity in America by even further lowering the price of corn, past the previous effects of government subsidies, through the effective use of genetic modification to achieve increased crop yield. Greedy corporations have taken advantage of this opportunity to increase their profits using inexpensive corn and corn derivatives in as many of their products as possible despite the health risks to consumers from excess simple sugars in starch metabolism, leading to excessive weight gain and obesity. The intended beneficial effects of using genetic modification to aid those poor *in wealth* have actually made everyone poor *in health*. This development sheds light on the interconnected nature of the motives of scientific advancement. It becomes apparent that scientific discovery in genetic engineering is not solely driven by curiosity and a sense of altruism, but that it is also heavily influenced by the monetary power and inclinations of big corporations in America, supported by government policy. Now that this connection is evident, steps should be taken by biotechnology companies and the government to redirect the attention of GM food research to the production of healthier foods that will feed the poor with lower prices but also will benefit the overall health of all Americans.

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Author's Biography

ALEX SGANGA

In “Concussions in Youth Football,” Alex Sganga explores the significant dangers facing children who play football from an early age. He goes on to examine what steps have been taken legislatively and what further steps can be taken in the future to protect children playing football. This essay was inspired by the intense media coverage of the struggles of retired NFL players, but also by what Alex perceived as a lack of public knowledge on the more dangerous risks faced by future generations of football players. Alex, from Scarsdale, New York, is a sophomore Finance major living in Keough Hall. He would like to thank his professor, Ms. Emily Gandolfi, for all her help during the writing process and for pushing him to produce his best work.

Concussions in Youth Football

ALEX SGANGA



No matter how young they are, every youth football player dreams of playing in the National Football League. But the reality of the situation is quite bleak. Statistics say that only six percent of all high school football players go on to play football in college. From that group, only 0.8 percent will go on to play in the NFL, a miniscule percentage. Yet one hundred percent of youth football players face the possibility of depression, dementia, and Alzheimer's disease at an accelerated age from concussions due to playing tackle football. Why are Americans putting their children potentially at risk for such debilitating injuries? It is becoming clearer every day that large-scale changes need to be made in order to protect the futures of children that play football. Inaction could lead to catastrophic results. While positive steps have been made legislatively to start addressing the problem, the current efforts are inadequate. Based on these facts, I believe the only way to dramatically lessen the risk of concussions in youth football is to eliminate all tackling in youth football before high school.

Concussions in football have become a hot button topic in the media the last few years. The National Football League, the most important institution in American football, has drawn significant criticism from former players who claim the NFL did not provide adequate healthcare for players after they retired. Many players have cited battles with depression, dementia, and other debilitating ailments in the years after their playing careers. More than two thousand former players have filed a one billion dollar class action lawsuit stating that the league should have known about the lifelong dangers of head trauma and provided proper health care services to retired players (Adams). Also shocking have been the multiple high profile suicides committed by former NFL players in the last couple of years. Former all-pro player Dave Duerson committed suicide by shooting himself in the chest at age fifty,

leaving a note saying he wanted his brain donated to be studied (Garcia-Roberts). Last year, future Hall of Famer Junior Seau also shot himself in the chest at the young age of forty-three (Garcia-Roberts).

All of these events have led to an increased, intensive study of the effects of repeated concussions on the brain. The results of these studies have shown the very real and dangerous effects of concussions, which rapidly age the brain, leaving former players in terrible condition. While this increased study of concussions is ultimately a positive step in eliminating the problem, the media's attention has been misguided. Ninety percent of all brain injuries occur between the ages of five and eighteen (Johnson 184). Media scrutiny and scientific studies have slowly led to changes in how the NFL treats players who suffer concussions in the present. But these changes have not fully trickled down to the youth level, leaving a gaping hole in the safety of younger players.

Concussions, occurring either from direct blows to the head or indirect impulses, have become an epidemic in youth football, affecting players both in the short term and the long term (Johnson 182). The first thing to note when looking at concussions in youth football is their prevalence, especially when compared to other high school sports. A study published in 2011 by the *American Journal of Sports Medicine*, "Trends in Concussion Incidence in High School Sports: A Prospective 11 Year Study," looked at the concussion rates of athletes in twelve high school sports from 1997 until 2008. The study alarmingly found that 53.1% of all concussions in high school sports came from tackle football (Hinton et al. 960). Now, one's first reaction might be to question the findings of one study, as one study alone cannot possibly offer conclusive evidence. However similar studies of concussions in high school sports have yielded the same results. In the discussion of the study, the authors cite two other studies, "Concussions Among United States High School and Collegiate Athletes" by Gessel et al., and "An Epidemiologic Comparison of High School Sports Injuries Sustained in Practice and Competition" by Rechel et al, that found very similar results in the rate of high school football related concussions (Hinton et al. 961). Even more worrisome than the extremely high rates of concussions reported in the studies is the fact that over the period of 1997 to 2008, concussions in high school football rose 8% annually (Hinton et al. 960). This means the problem of youth football concussions is an issue that will not go away with time, but is one that will become even more prevalent if it is not addressed.

Why are concussions becoming so prevalent in youth football? There are two key factors to consider in answering this question. The first is an alarming fact brought to light by researchers at Virginia Polytechnic Institute and State University. Their study of helmets in youth football found that children at the ages of seven and

eight are receiving impacts to the head as powerful as the impacts eighteen- to twenty-one-year-olds are receiving in college football (Fatsis). Another key factor that people do not fully understand is how vulnerable children are to the effects of concussions. As Dr. Sanjay Gupta said in a recent interview,

It's interesting, because it's a little non-intuitive. In most cases, being young is helpful. Your body can rebound more quickly and repair itself. When it comes to the brain, because the brain is still developing, it actually can be more traumatic because the deposits can make it really tough for a brain to develop normally. For younger players, sometimes the impact of multiple concussions can be worse than on someone who's older. (Glicksman CNN)

So children, who are already at a higher risk for concussions, are receiving hits as hard as those given and received by adult athletes. It's a recipe for disaster.

What is worse than the prevalence of concussions is the devastating effects they have on children. Concussions can leave children not only with short-term effects such as headaches, dizziness, and sensitivity to light (Comstock et al. 749), but also dangerous long-term effects. As a 2011 article in the *Journal of School Health* stated,

Concussion can result in deficits in attention and concentration, reaction time, processing speed and memory, and executive function. Although generally considered to be a transient injury, there is evidence that it can result in subtle, persistent cognitive, and neurological deficits, lasting up to 3 years, that are not clinically observable. (Johnson 181)

These symptoms mean that students are unable to function in their normal capacities, stunting their ability to learn and perform well in school.

The long-term effects of concussions are even more alarming. As Dr. Sanjay Gupta has said,

There is now evidence of what are known as plaques and tangles. These are protein deposits, the same sort of protein deposits that you see in someone with Alzheimer's disease. What I think is most striking is we saw the brain of a 17-year-old football player who also had it. The idea that these types of changes are occurring in the brain of someone in their teen years is pretty remarkable. (Glicksman CNN)

Not only are concussions affecting how students perform in the present academically, but concussions can leave them completely debilitated, with brain function that resembles that of an Alzheimer patient. Thus, concussions pose a danger that we cannot necessarily see face to face, but one that silently debilitates those who

suffer these injuries. Based on this knowledge, one would think that high school football would have more precautions in place than the NFL. Unfortunately that is not the case. If anything, the NFL has *more* precautions than those of high school football, even though comparatively, there is much less at stake in terms of brain health.

*No matter how many rules
you try to put in place,
it is impossible to eliminate
accidental hits to the head on
any given play.*

Clearly this evidence shows that severe restrictions need to be made in youth football to limit the risk of concussions. I believe the only completely effective way to deal with this issue is to eliminate tackling before high school entirely. Eliminating hits will inevitably cut down the chance of getting a concussion. No matter how many rules you try to

put in place, it is impossible to eliminate accidental hits to the head on any given play. Even if rules are put into place there also becomes the question of how well they are being enforced. As Douglas E. Adams wrote in his 2012 paper on concussions in youth sports,

Ultimately ‘all safety is local’ because protocols and playing rules are enforced (or not enforced) in practice sessions and games in towns and cities largely beyond the direct day-to-day supervision of national and state governing bodies... A youth sport’s playing rules—the ‘statutes of the game’—similarly are merely words on paper, and they achieve their protective purpose only with responsible local enforcement by coaches, league administrators, game officials, and parents. (Adams)

The truth of the matter is that coaches cannot be trusted to enforce these rules. There will always be a coach trying to skirt guidelines or restrictions in order to gain some competitive advantage. By simply eliminating tackling entirely, this would no longer be an issue.

There are other options in place of tackle football before high school. Dr. Robert Cantu, the cofounder of the Sports Legacy Institute, an organization dedicated to dealing with the concussion crisis through research (Playing Safety), suggests starting with flag football and then slowly advancing to pads:

We believe that tackle football should not be played, rather flag football should be substituted, and in the substitution of flag football, it’s perfectly okay if pads are worn and even helmets are worn. But the act of tackling, which is the activity where almost all of the serious injuries happen and the majority of the concussions, as well, is eliminated, and instead flags are pulled. (Playing Safety)

The scenario described by Dr. Cantu is quite plausible. Flag football could offer the basis from which young players would learn the basics of proper tackling technique without actually endangering anyone. When players reach the age of fifteen or sixteen and are deemed physically mature enough, they can be cleared to play fully padded tackle football (Fatsis). This scenario severely limits hits to the head at a young age, while better regulating how they learn to tackle, allowing more children to learn proper technique. Additionally it does not drastically alter how football is played overall, as players will still be allowed to tackle in high school. It is a win-win situation for everyone.

In addition to the elimination of tackle football before players are physically mature enough to play, there are changes that can be made at the high school level when tackle football actually does take place. Specifically, there need to be adjustments in medical personnel associated with high school football teams. Less than half of all high school football teams have a certified athletic trainer on staff (Adams). That leaves safety decisions to be made by coaches, very few of whom are medical professionals or even have first aid training. Many times this leaves coaches in a situation where they are forced to make an on-the-spot medical decision about whether a player should come off the field or not, without consulting proper medical professionals (Adams). Leagues need to either invest money in providing proper medical trainers for these teams, or enlist medically trained volunteers to help on the sideline (Adams). Not doing so creates a major safety gap that leaves players extremely vulnerable.

It's important to note that there have been strides made in passing laws to help deal with concussions. However many of them are plagued with flaws that the above stated solutions better address. In thirty-five states as well as Washington DC, health mandates have been made in high school football (Glicksman CNN). Most of these states use what are called Return to Play guidelines (or RTPs), measures used and promoted by the NFL (Johnson 182). RTPs follow the same basic guidelines: a player who suffers a head injury must immediately leave the football game and cannot return until they have been medically assessed to be free of symptoms (Johnson 182). Some also mandate specific education courses for coaches and trainers to better understand the symptoms of concussions in the players. However RTPs suffer from two main problems. The first is that there has been trouble implementing them. An example of this is the state of Washington's version of RTPs, the Lystedt Law.

Significant barriers to effective implementation of the Lystedt Law in Washington have been reported, including inadequate medical follow-up, lack of concussion management training for medical personnel, and lack of baseline neuropsychological testing—which is not mandated by the law—for student

athletes, as well as liability and budgetary concerns for youth sports program. (Johnson 182)

The requirements that come with these sorts of mandates can be extremely expensive and too complex for high schools to implement, because high schools unlike the NFL, do not make 3 billion dollars a year. The lack of baseline tests mentioned above is extremely worrisome. Without them the mandate is pointless. If one cannot determine whether a player has returned to their normal cognitive functions, one is shooting in the dark, causing the same problems the mandate was trying to avoid in the first place. The second main issue with RTPs is that they serve as reactionary measures rather than preventative measures. RTPs help prevent players from getting multiple concussions over a period of time, but as research has shown it only takes a single concussion to have negative effects three years after the initial injury (Johnson 181–182). If mandates are to truly help make high school football safer for players, they must prevent concussions in the first place. When it comes down to it, Return to Play guidelines are insufficient in protecting football players.

Private football leagues, such as Pop Warner, a national youth football league with over 425,000 athletes competing from ages 5–16, have also recently passed laws in order to curb concussions (Popwarner.com). This past June, Pop Warner passed two major rules changes. The first eliminated tackling drills and head on collision drills in which players were standing three or more yards apart. The second limited the number of contact drills permitted to one-third of total practice time. Pop Warner was praised for being the first national league at amateur level to restrict the amount of contact football players would experience during practice (Adams). While this is admirable, the current rules still allow for youth football players to have more time for contact drills than players in the NFL (Fatsis). Based on all the evidence discussed earlier, it is counter-intuitive to allow kids to have more opportunities to hit each other than their less vulnerable adult counterparts. Additionally, how exactly can every team across the nation be held to the three-yard rule and the one-third of practice time rule? It is not plausible for a representative from Pop Warner to observe each and every single team in the country to make sure they follow the rules. There are bound to be rule breakers, leaving kids at just as much risk. While it is admirable that laws are being made for private leagues as well as public leagues, they are simply not as effective in dealing with the concussion issue as completely eliminating tackling would be.

Some might argue that education is the key to eliminating concussions. If coaches, players, and referees are made aware of what types of situations lead to concussions, the problem will be eradicated. Unfortunately this is simply not true. This can be seen from a survey of three-hundred twenty top high school football players done

by *ESPN the Magazine* from 2010 to 2012. One question asked in the survey was, "Is playing in the NFL worth a decent chance of brain damage?" In 2010 44.1% of athletes responded yes. In 2012 that percentage rose to 53.6% (Outside the Lines). Another question asked whether players should immediately be able to return to games after sustaining head injuries. In 2010 55.4% of athletes said yes they should. In 2012 66% said yes (Outside the Lines). In another question, which asked what they thought about the amount of time an injured player was required to sit out, the amount of players who responded that they thought the required time was "too long" doubled (Outside the Lines). What is alarming about these answers is that in the last two years, one facet of high school football that has changed is the amount both players and coaches have been educated. Because of all the media attention paid how the NFL has dealt with concussions, the awareness level of players at all levels significantly increased from 2010 to 2012 (Outside the Lines). But this survey shows that the importance of the subject has not increased for high school players overall. Even with the dangers of concussions well known, players still choose to go out and unnecessarily risk their futures in order for the chance to play at a college or professional level.

To those who still believe that tackling should be allowed in youth football, I leave them with the story of Chris Coyne, a former high school and college football player who was profiled by *ESPN* this past August. Coyne sustained at least six concussions in his career, but knowingly played through many of them, even though he suffered fits of memory loss and insomnia weeks after he was initially injured (Parker *ESPN*). He even stayed in games in which he could not walk straight or remember which play the quarterback had called only moments earlier because he did not want to let his team down and because he was being recruited by several Ivy League schools to play football. "I never considered quitting," he says, "because within a couple weeks of the concussions I was 100 percent, which was probably bad for me. For me, looking long term was looking to play Saturdays. I didn't think about the big picture" (Parker *ESPN*). Once he enrolled Yale University, he was finally forced to quit football after measures of his cognitive functions found that he had dropped from the 80th percentile prior to his sixth concussion, all the way down to the single digits (Parker *ESPN*). Coyne illustrates the scary and harsh reality of concussions in youth football. Education is always a great option, but it is clear that education alone has not been effective in dealing with this issue. To focus on education alone is to allow more and more children to have the same fates as Chris Coyne. We cannot allow this sort of future for our children. Tackling in youth football must be eliminated now, or else we risk losing an entire generation of young athletes to brain injury.

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Author's Biography

KERRY MCNEILLY

Kerry McNeilly's essay "Who Is in Control? Analyzing Property Rights to Human Tissue Used in Research" questions the extent to which patients can exercise property rights over their own tissue used in research studies. This essay was inspired by the compelling story of Henrietta Lacks and her famous HeLa cells, which was related in the book *The Immortal Life of Henrietta Lacks* by Rebecca Skloot. Kerry's interest in this immortal cell line was sparked during a high school biology class and continued to be a subject of interest after her arrival at Notre Dame. Kerry is a rising sophomore from Princeton Junction, New Jersey. She hopes to graduate with a degree in Chemical Engineering and pursue a career in the pharmaceutical industry. Kerry would like to thank her Multimedia Writing and Rhetoric Professor Douglas Duhaime for his valuable guidance through the essay writing process.

Who Is in Control?

Analyzing Property Rights to Human Tissue Used in Research

KERRY MCNEILLY



A woman is diagnosed with advanced stage cervical cancer and seeks treatment at a research hospital. While she is receiving care, a doctor takes a biopsy of her cervix to study the cancer. The doctor finds something interesting about her cells and continues researching this sample. Years later, he makes an important discovery about the nature of cells and becomes famous and wealthy. The woman, unaware that the doctor has used her cells for research, continues treatment but ultimately dies because of her cancer. After some time, the patient's family finds that it was the patient's cells that led to the doctor's famous discovery. The patient's daughter asks, *What right did the doctor have to extract my mother's cells without her knowledge?* Her husband questions, *Did my wife have legal control over her excised cells?* Her sister wonders, *Did the doctor have a legal responsibility to inform my sister of what her extracted cells would be used for?* The family wonders, *Are we entitled to any profits from the doctor's successful discovery?*

This is the story of Henrietta Lacks, the source of the HeLa cell line and a key figure in the debate concerning property rights to human tissue used in research. Henrietta Lacks was an impoverished woman whose late stage cervical cancer was examined by Dr. George Otto Gey. Because of his research on Lacks's cells, Dr. Gey was the first person to develop an eternal cell line, cells that reproduce indefinitely outside of a person's body, today known as HeLa cells. While Dr. Gey's discovery was extremely profitable, Lacks's family was never informed about the success of Henrietta's cells from a medical nor an economic perspective. Henrietta Lacks serves as an example of a person used by the medical field for what can be interpreted as a researcher's selfish gains. Lacks's case is an example of possible injustices that can occur as a result of patients not being granted property rights to their tissue used in research.

Patients currently do not have ultimate control over the tissue removed from their bodies. Once a patient gives permission for a biopsy, researchers can do what they please with the excess cells. A patient may wonder: *Should I have control over the cells excised from my body? Should I receive any form of compensation for these biopsied cells? Should doctors be allowed to use these cells for research without my permission?* These questions frame the debate regarding property rights in research.

This paper will pursue an answer to the question: *To what extent do patients have property rights over cells used in research, and to what extent should they have such rights?* I will first introduce Henrietta Lacks, an important figure in framing this debate, and will then transition into *Moore v. Regents of the University of California*, a famous California Supreme Court case about the issue. Then I will analyze the debate from both an ethical and a financial perspective.

I. The Story of Henrietta Lacks

Henrietta Lacks was an African American woman born on August 1, 1920. Lacks was a mother of five living in poverty. On January 29, 1951, she visited Johns Hopkins University Hospital because she felt a “knot” inside her. She found out she was pregnant. After her delivery, Lacks’s “knot” persisted and she returned to the hospital. Her doctor, Dr. George Otto Gey, found that she had a cancerous lump on her cervix (Skloot 24).

Once her cancer was discovered, Lacks began treatment at the hospital under the care of Dr. Gey. During routine radiation treatments, Dr. Gey removed both healthy and cancerous samples of Lacks’s cervix. Dr. Gey conducted these biopsies without any permission from Lacks. As her condition progressed, Lacks’s radiation treatments proved unsuccessful, and her aggressive cancer spread, ultimately metastasizing to her vital organs. Lacks died on October 4th, 1951, at the age of 31. Though Lacks had died, her biopsied cells continued to divide and still divide to this day, the first “immortal” cell line. This cell line, known as the “HeLa” cells, is thought to self-replicate indefinitely (Skloot 28–32).

Studying the HeLa cells has helped advance both cancer and AIDS research and has helped scientists to better understand the effects of radiation and toxic substances. These cells were also used by Jonas Salk to develop the polio vaccine in 1954 (Skloot 40). Though Lacks’s cells have been used in many facets of medicine and have become an extremely lucrative product for researchers, Lacks’s family was neither informed that Henrietta’s cells were contributing to the famous cell line, nor were they compensated for Lacks’s important contribution to medicine (Williams 1).

Henrietta Lacks represents a single case in a larger debate concerning patients' rights to their extracted cell samples. Lacks is a special case, however, because of the publicity her particular cell line has received and because Lacks herself is known as the source of this cell line, while most other cell lines remain anonymous (Williams 1). This instance serves as an example that has helped establish the debate concerning patients' property rights to their tissue used in research. This debate is further discussed in the case *Moore v. Regents of the University of California*, which details a similar case that took place in 1990.

II. *Moore v. Regents of the University of California*

This next section provides a general discussion of *Moore v. Regents of the University of California*, one of the major cases outlining the debate regarding property rights to a patient's cells. The court case often associated with Henrietta Lacks is *Moore v. Regents of the University of California*, which was filed on July 9, 1990 (Indiana Law Review 559). This case concerns John Moore, a hairy-cell leukemia patient seeking treatment at UCLA Medical Center. John Moore was diagnosed with his cancer and began treatment in 1976. As a part of his treatment, many samples of Moore's bodily fluids were taken for testing and his spleen was removed, as recommended by his doctor, Dr. David W. Golde. Dr. Golde asked Moore to return to the medical center many times over the next seven years for additional testing. However, many of these return visits were solely to aid in Golde's research. Moore was unaware that his doctor was conducting research using his cancerous cells (Schofield 28–32).

In 1981, Dr. Golde applied for a patent on a cell line developed from Moore's cell sample. This patent was issued in 1984, and UCLA licensed this patent to Genetics Institute. Dr. Golde received 75,000 shares of Genetics Institute stock and more than \$400,000 as compensation for his lucrative cell line (Schofield 28–32). Once he realized his cells had been patented and were being used commercially, Moore sued his doctor. Moore filed suit claiming that there was a breach of fiduciary duty, a lack of informed consent, and an interference of ownership (Indiana Law Review 559).

This case eventually reached the California Supreme Court, and the court ruled that Moore did not have any rights to the profits of his discarded body parts (Moore). Because the patented cell line and products derived from it were factually and legally distinct from the cells taken from Moore's body, Moore could not be granted property rights to his cells that contributed to the new cell line. The court also stated that recognizing property rights in cells removed from patients was unnecessary to protect a patient's privacy interests (Bovenberg 929). The court

continued, arguing that giving a patient such property rights would “destroy the economic incentive to conduct important medical research” (Truog, Kesselheim, and Joffe 2). This ruling was very important in establishing a patient’s position in the research process. The ruling put the general needs of the public ahead of the wishes of an individual patient. However, the decision, while monumental, was made in California’s Supreme Court and applies only in California. There has been no United States Supreme Court ruling on the subject of granting property rights to patients, and until there is a national precedent set, the California standard could be subject to change.

The case of Moore v. Regents of the University of California has brought about the implementation of a new standard procedure that requires informed consent, limiting a doctor’s complete control over a patient’s cells. However, the issue of rightful control of cells has never been addressed in the U.S. Supreme Court, and so the debate persists.

Although Moore was not granted property rights, he was successful in helping to establish the precedent of a new physician’s disclosure obligation. Now a doctor must inform a patient of any personal interests he or she may have in the cell sample, even if these interests could affect the doctor’s medical judgment. Then the patient must give the doctor informed consent to obtain a cell sample (Moore).

Together, Henrietta Lacks’s story and the case *Moore v. Regents of the University of California* raise a question with two sides: *To what extent do patients have property rights over their cells used in research?* and *To what extent should doctors have control of a patient’s cells while the patient is undergoing treatment?* The case of *Moore v. Regents of the University of California* has brought about the implementa-

tion of a new standard procedure that requires informed consent, limiting a doctor’s complete control over a patient’s cells. However, the issue of rightful control of cells has never been addressed in the U.S. Supreme Court, and so the debate persists.

III. Ethical Considerations in the Property Rights over Human Cells Debate

The debate over property rights to human tissue used in research has support on both sides—the side favoring the patient, and the side favoring the researcher. Proponents of granting control to patients generally tend to be concerned with the ethical effects of withholding rights, and they are concerned with the patient’s general wellbeing throughout the treatment process. This argument for granting patients property rights focuses on the individual. One supporter of granting patients

property rights believes that giving patients more control over their tissue “would prevent lawsuits, allay public fears about genetics, increase the ethical status of the profession, improve doctor-patient relationships, and prevent harm” (Wertz 503). The reasons Wertz provides fail to reflect the concerns of a large group of people, including both those who are currently sick and those who may be sick in the future. Wertz homes in on how the change would affect a patient presently, but his view does not take into account those who may benefit from advances in research in the future. The future of medicine should also be considered when analyzing the debate.

Respecting cultural differences is also very important to those who support granting property rights to patients. In some cultures, the body is held in very high regard, and altering the body’s natural state, such as extracting cells to conduct research, may be looked down upon. When a group of researchers at the Centers for Disease Control and Prevention attempted to analyze previously compiled samples, an advisory group noted, “retaining tissue samples or immortalizing cell lines may violate cultural or religious beliefs,” and thus the CDC stopped studying these cell lines (Andrews, Nelkin 56). Ignoring a patient’s religious or cultural views could affect “the psychological well being of [the individual], the maintenance of important social values, and the future of science itself” (Andrews, Nelkin 56). If patients lose trust in their doctors,

they may become unwilling to comply with their doctors’ wishes. Patients may refuse to participate in the treatment processes that produce needed materials and data for research. So, in order for research to thrive in the future, doctors must maintain good relationships with patients, respecting the personal needs of each patient.

However, arguing that cultural differences should be recognized does not necessarily imply that a patient should be given complete control over biopsied cells. It is imperative that doctors abide by the “informed consent” mandate and inform the patient about when a biopsy will be taken and what it will be used for. If, however, a patient were to refuse a biopsy and request that the doctor comply with a different, less effective, or possibly even more dangerous method of acquiring results in order to “respect the body,” the doctor should have sufficient control to step in and explain why the biopsy is important to the patient’s wellbeing.

If patients lose trust in their doctors, they may become unwilling to comply with their doctors’ wishes. Patients may refuse to participate in the treatment processes that produce needed materials and data for research. So, in order for research to thrive in the future, doctors must maintain good relationships with patients, respecting the personal needs of each patient.

If a patient's residual tissues (the extracted tissue that remains eligible for research after a patient's biopsy has been analyzed) are being used for research, should a doctor be required to request that these cells be used for further examination? This question differs from that of requesting biopsies for cells to be used for research purposes only because these cells were not taken from the body with the primary purpose of using them in research. On the contrary, these cells were extracted for other medical needs and would be thrown away if they were not used for research because they no longer serve a purpose. These cells, which are considered "garbage" by a doctor treating a patient, may be very valuable in genetic research, so simply throwing the cells away would be wasteful.

There are two general opinions in response to the question of whether third-party researchers need patient consent to use residual tissue in research. Some scholars believe that a doctor should be required to request permission from the patient to use the patient's cells. These scholars argue that the cells remain the property of the patient, regardless of the reason the tissue was extracted, and the patient should not have to give his or her cells away unwillingly. Even if the cells would be used for research, a patient who feels uncomfortable with such use should have the right to prevent it, whether the patient's discomfort is due to financial or ethical constraints (Andrews, Nelkins 56).

Alternatively, other scholars believe that patients should not be involved in decision-making about the uses of their by-product cells. Robert Troug, Aaron Kesselheim and Steven Joffe defend the use of tissues without patient consent in their article "Paying Patients for their Cells: The Legacy of Henrietta Lacks:" "Residual clinical tissues are obtained as a by-product of necessary care, involve no increased potential for harm or discomfort to the patient, and entail no extra effort or inconvenience beyond that inherent in the patient's medical treatment" (38).

Troug, Kesselheim and Joffe's position epitomizes the argument against giving patients control of their cells regardless of the circumstances. U.S. standards do require that researchers obtain consent whenever possible, but the authors argue that there is no reason to approach patients for consent over excess tissues, and there is good reason to allow researchers to act freely. Such tissues would be discarded anyway; instead of discarding them, researchers are making good use of what would otherwise become trash.

IV. Addressing Compensation in the Debate over Property Rights to Human Cells

We will now begin to discuss the financial side of the debate concerning whether patients should be given property rights to their tissue used in research. More

specifically, this debate questions whether patients should be compensated for their tissue used in research: If patients should be compensated, then how and to what extent should they be paid for their medical contribution?

Troug, Kesselheim, and Joffe look at this economic debate from both perspectives. They present both sides of the debate by offering reasons both for and against paying patients for their cells. The authors open the support for paying patients for cells used in research by stating: “If patients own their tissues, even after removal from their bodies, then it follows that they have the right to demand payment when a profitable discovery derives from them” (Troug, Kesselheim, Joffe 37). In this case, the authors assume that cells are a part of the human body and their contribution to science alone should result in some sort of compensation, although these cells solely serve as the medium for which the scientific discovery is made. Further, they claim, there is evidence of a precedent for paying patients:

Even if patients lack property rights, there are examples of individuals receiving financial compensation for donating tissue. EX: Ted Slavin, a man with hemophilia who developed [a rare blood condition]. His physician informed him that his blood might be valuable to researchers and he was able to sell this serum for \$10,000 per liter. (Troug, Kesselheim, Joffe 37)

Regardless of how compelling it is, this case is unique; in most circumstances a physician would simply not inform a patient that his or her tissue could be so valuable. In a more likely situation, a researcher would try to harvest the tissue necessary for making discoveries, using a specimen taken for testing or treatment purposes.

Yet the example of Ted Slavin highlights another facet of this debate. Some specimens are not extracted by researchers themselves but are willingly provided for research purposes, with the expectation that the person donating the specimen will be compensated for the contribution. Troug, Kesselheim, and Joffe elaborate on this facet of the debate, stating:

Ample precedent exists for offering payment when individuals are asked to cooperate with physicians or investigators for the benefit of others. For example, in research contexts beyond that of tissue acquisition, subjects are commonly compensated for the time, effort, and cooperation that participation requires. Similarly, payments are often made when renewable tissues are procured from volunteers, not for their medical benefit, but solely for the benefit of others. This is reflected in the markets that exist for blood and blood derivatives, oocytes, sperm, and breast milk (38).

This situation is different from that of the HeLa cell debate or the case of *Moore v. Regents of the University of California* because here the samples are given willingly,

with the knowledge that the donor will be compensated. If there were no sort of compensation, the exchange would not be made, and the market for buying these products, as well as selling them, would become obsolete. However, the authors state:

In light of the *Moore* decision and other legal precedents holding that individuals do not retain property ownership over removed tissues, we suggest that a plausible rationale for justifying such payments is that they are made in exchange for the performance of a service rather than for the transfer of property. (Trough, Kesselheim, Joffe 38).

This offers an alternative way to approach the question of whether patients should be given property rights for cells used in research. The authors see tissue donation as performance of a service rather than the transfer of property, redefining the debate in a new context. However, the service concept only applies to certain renewable tissues and would not include specimens obtained during more invasive procedures, such as cell samples procured from biopsies.

We will now begin to look at the debate from the perspective of those who oppose paying patients for their cells used in research. In “Paying Patients for their Cells: The Legacy of Henrietta Lacks,” Trough, Kesselheim, and Joffe open this contrasting side of the debate by stating, “Although it is true that the patients have contributed ‘raw materials’ necessary for development of the cell line, it is the investigators, not the patients, whose intellectual contributions lead to the creation of value” (38). This addresses the fact that, while a patient’s cells do serve as a medium for discovery, it is the scientists themselves who apply their knowledge to further ad-

advance their field of study. The patients themselves do not contribute anything of intellectual value to the process; the patients simply have the cells necessary to facilitate discovery.

Next, the authors discuss the problems that accompany paying patients for cell samples. One issue that could arise is that people might begin to have multiple biopsies performed purely because they want to profit from a researcher’s need for cell samples to examine. The authors state: “There is a risk that invoking the extrinsic motivation of money would crowd out intrinsic motivations, such

as the desire to contribute altruistically to improved knowledge and treatment” (Trough, Kesselheim, Joffe, 38). The goal of patients could then shift participating

A final argument against compensating patients for their cell samples is that not every cell sample is ultimately valuable, so compensating every patient who contributes a specimen would be unprofitable.

in research for the sake of the common good to participating only for the sake of making money.

A final argument against compensating patients for their cell samples is that not every cell sample is ultimately valuable, so compensating every patient who contributes a specimen would be unprofitable. While some cell samples do lead to cell lines or to the creation of important drugs, a patient's cell sample could potentially be used for a variety of research needs, not all of which will ultimately lead to a profitable conclusion. In "Property Rights and Payment to Patients for Cell Lines Derived from Human Tissues: An Economic Analysis," the authors discuss the problem with paying all patients for their cell lines: "The benefits from paying patients for cell lines are limited. A basically elastic supply of cell lines as well as the existence of the cell repositories suggests a zero price for the vast majority of cell lines" (Greenberg, Kamin 1076). The idea of "zero price" for most cell lines then raises the question: *What if a cell sample, like that of Henrietta Lacks, was known to be solely responsible for a certain medical discovery? Would a researcher be responsible for paying this party?* This question addresses the problem of fairness and the need for a standard procedure for all patients whose cells serve as samples in research. Greenberg and Kamin discuss this problem further: "Once a single patient receives payment, other patients will also request payment. Significant costs would then be incurred by researchers who would have to negotiate and assign a value to all of their cell lines" (1076). This process of negotiating the value of samples takes away from the important research itself and minimizes researchers' incentives to continue working towards medical breakthroughs.

The multifaceted debate regarding patients' property rights over their cells used in research is inconclusive and ongoing. There are instances when the debate has been clearly defined, such as in the case of *Moore v. Regents of the University of California*; however, this case is outdated, so both sides of the debate still have room to make their case to the

United States Supreme Court. Some believe that patients deserve control over their cells because they have property rights over their bodily tissues, while others are more concerned with donating samples to advance science. Similarly, some wish to have property rights so they can make money off of their extracted cells, while others see the importance of their donation to science and are not concerned with being monetarily compensated. Regarding the property rights debate, we must

Regarding the property rights debate, we must remember what every technological advancement does to improve our society as a whole; finding ways to eradicate diseases or to cure cancer would improve our society and our way of life, so it is ultimately in our best interest to support continued medical research.

remember what every technological advancement does to improve our society as a whole; finding ways to eradicate diseases or to cure cancer would improve our society and our way of life, so it is ultimately in our best interest to support continued medical research. This means that individual patients must be somewhat altruistic in their actions and should not expect to profit from their excised cells. However, researchers do need to respect the sanctity of life and the customs of each culture, so researchers should be clear with each patient about what motives they may have that would not directly serve to benefit the patient. If patients and doctors work together and reach a mutual understanding, important scientific advancements can be made and our overall quality of life can be improved.

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Author's Biography

REBECCA NOBLE

Rebecca Noble is from Needham, Massachusetts. She is a Biology major, with the aspiration of attending medical school and training to become a pediatric specialist. One aspect of medicine that interests Rebecca is medical ethics. Her essay, "Selling Ourselves: The Slippery Slope of (Voluntary?) Human Body Part Sales" is a rebuttal to Rebecca Skloot's best-selling biography *The Immortal Life of Henrietta Lacks*, which recounts the story of a black woman whose cells were cultured without her permission after a tumor biopsy in 1951. After reading the book, Rebecca was inspired to explore the ethics of our current donation-based system of tissue procurement. Her essay was a semifinalist in the 2012 Muhammad Ali Writing Award on Ethics Contest. Rebecca would like to thank her Writing and Rhetoric instructor, Meagan Simpson, for all of her guidance, constructive criticism, and, above all, enthusiasm throughout the writing process.

Selling Ourselves

The Slippery Slope of (Voluntary?) Human Body Part Sales

REBECCA NOBLE



One of the greatest benefits of the world's extraordinary technological advances over the last century is that we are now able to address and solve problems that once seemed impossible. This has been especially evident in the pharmaceutical and biomedical fields where the advancements have been truly life-changing. With the development of imaging technology like MRIs and CAT scans doctors can now detect diseases earlier and with greater accuracy. Coupled with the discovery of new medical treatments such as chemotherapy, and now even gene therapy, these technologies have greatly improved patient outcomes. However, we cannot let the pure excitement of these innovations eclipse our duty to protect human dignity. We must ensure that our technological evolution is coupled by an equal progress in our ethical stance on how we use our new knowledge and how we treat all contributors.

Throughout human history, rapid scientific advancements have been fraught with examples of exploitation, where one or more groups reap a disproportionately small benefit from their contribution to the overall good. Perhaps one of the most infamous cases of such exploitation in medical research is that of the Tuskegee Syphilis Study. From 1932–1972, researchers from the U.S. Public Health Service took advantage of hundreds of poor black men with syphilis, claiming to be treating the men for “bad blood” when, in actuality, the researchers were providing the men with placebos so that they could study the natural progression of the disease without the men's consent. The exposure of this study's unethical methods had lasting implications for future studies involving human subjects; as a result of the study, the Office for Human Research Protections was established and federal laws were passed to require institutional review boards for studies involving human subjects (Deria). Though these measures significantly improved the nature of patient consent, they only scratch the surface of human subject protection.

Given the recent rapid advancement of scientific research, it is ever more crucial that we protect the rights and interests of those who may be called upon to provide the actual biological materials needed to fuel such industries. We must make it our priority to uphold standards for the ethical procurement of biological materials to prevent patient exploitation, especially among the poor, who are perpetually vulnerable. Specifically, we must develop and enforce much better standards for educating these patients about their options and securing their truly informed consent when providing their own biological material for our general good.

Rebecca Skloot brought this issue to the general public's attention in 2010 when she published her best-selling biography *The Immortal Life of Henrietta Lacks*. The biography recounts the story of a woman whose malignant tumor cells were cultured without her permission after a biopsy in 1951. Ms. Lacks's cells were made into the famous *HeLa* cell line that is used globally in research labs. More than 60,000 experiments have been conducted using *HeLa*, including those that led to the development of medical technologies and treatments including the polio vaccine, chemotherapy, and in vitro fertilization (Cohen).

In her book, Skloot juxtaposes the success and wealth Henrietta's cells brought to medical research with the struggles and poverty the Lacks family endures today. Most ironically, Henrietta's children are unable to afford their own much-needed healthcare. Thus, by sharing the Lacks family's story, Skloot urges us to question the ethics of a medical system that allows for such disparity. She suggests that the healthcare system blatantly violated Henrietta's rights by allowing for removal of her tissue without her informed consent, and that they have compounded their transgression by failing to allow her own family to benefit from her cells.

Skloot asserts that the donation-based system for procurement of biological materials takes advantage of patients by denying them the opportunity to profit from the use of their bodies in lucrative research. Skloot, along with other so-called "tissue advocates," questions the general attitude that individuals should donate their tissues to research since this research has the potential to lead to discoveries and developments that can help everyone. She argues that scientific research does not indeed help "everyone." Rather, it benefits only those who are able to afford healthcare. Skloot criticizes the donation-based system, saying "there is an imbalance in this country, which means many of the medical advances coming from tissue research *aren't* available to everyone, sometimes including those who provided raw materials for the research" ("FAQ"). Skloot is right to point out the disparity in the current healthcare system. Asking impoverished patients to contribute parts of their bodies to lucrative research, the results of which they are not even able to benefit from due to healthcare inaccessibility, certainly contributes to the gap

between the wealthy and poor. This “imbalance” is an institutional problem within our healthcare system.

Some suggest that the best way to protect patients like Henrietta Lacks from exploitation is to allow them to sell their body parts through a new tissue market. Additionally, they assert that a tissue market could rectify the current economic gap between doctor-researchers and their patients. However, this solution is suspect because the sale of biological materials introduces ethical issues about commodification of the human body. And, regardless of the ethical challenges, allowing individuals to sell their body parts will not shrink the economic gap between researchers and patients. In fact, I argue that it would further marginalize the poor. Those who are struggling financially may feel compelled to sell their bodies to support their families, whereas the rich will have the luxury to decide whether to sell, donate, or dispose of their cells. I argue instead that informed consent

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for tissue donation is the best approach. I acknowledge that improving informed consent will do nothing to decrease the economic gap. However, bolstering our informed consent regulations *will* allow patients to make their own decisions on how their bodies are used without the potentially coercive influence of financial compensation. And, when it comes to biomedical ethics, patient autonomy is of utmost concern.

While there has been strong support among medical and legal experts alike for increased patient control regarding the use of their tissue for research, few support patients gaining economic control of their bodies. When confronted with the concept of extending property rights to patients’ bodies, many dissenters have the same response as R. Alto Charo, a professor of law and bioethics at the University of Wisconsin Law School. She feels that a property-based approach to increasing patient control complicates the issue. Such an approach would introduce questions about who should profit from body parts. “A common bundle of rights associated with ownership of property,” she explains, are “exclusive use, donation, sale, alteration, and destruction” (Charo). Thus, she predicts, “if this pattern were extended to tissues, then selling organs might become a matter of right” (Charo). If property rights are taken to mean economic control over one’s body, it could lead to a whole new industry in organ sale, something that is currently illegal in the United States (Prohibition of Organ Purchases).

Beyond these legal complications that a tissue market poses, tissue sale is dangerously dehumanizing because it attaches a price to the body. Justice Arabian of the California Supreme Court, who ruled in the 1990 landmark *Moore v. Regents of the University of California* court case, strongly agrees. Similar to Henrietta Lacks, Moore was a patient being treated for cancer who had tissue samples collected from his body for medical research, including the development of a cell line similar to the *HeLa* cell line, without his informed consent. Moore sued his physician, claiming that his blood, tissues, and even the cell line were his personal property. However, the court ruled that Moore had no right to share in the profits earned from the commercialization of his cells. In the concurring opinion, Justice Arabian wrote, “[Moore] entreats us to regard the human vessel—the single most venerated and protected subject in any civilized society—as equal with the basest commercial commodity. He urges us to commingle the sacred with the profane” (Supreme Court of California 19). Justice Arabian fears that treating human tissue as “fungible articles of commerce” will devalue the person as a whole (Supreme Court of California 19).

Arabian’s reasoning draws from two widely-accepted Kantian ethical principles about proper human treatment. The first is the idea that “man is not a thing—not something to be used *merely* as a means: he must always in all his actions be regarded as an end in himself” (Kant, *The Moral Law*). That is, people should not merely be used for others’ benefit. Rather, each person should be unconditionally loved and valued. The second principle is that “in the kingdom of ends everything has either a value or a dignity. Whatever has a value can be replaced by something else as its equivalent; on the other hand, whatever is above value, and therefore admits of no equivalent, has a dignity” (Kant, “Transition from Popular Moral Philosophy”). In other words, as soon as something is given monetary value, it loses its self importance. The idea is that an object with monetary value becomes fungible—it has no inherent worth and can be replaced with anything of similar nature. Justice Arabian believes that permitting patients to sell parts of their bodies has the potential to result in patient tissue vendors being treated solely as a means for procuring much-needed biological materials rather than as ends in themselves as people and patients. Moreover, he fears these patient-vendors will become commodities with value rather than dignity, for it won’t matter who provides the tissues so long as they are provided.

Tissue advocates may express frustration with this reasoning, claiming that tissues and other biological materials are already being sold for profit by researchers. They argue that allowing patients to sell their body parts would not change anything, except for the fact that it would now allow patients to share in the profit derived from raw materials taken from their bodies. Some tissue advocates may even suggest that

the current system is strategically designed so as to maximize the profits for health-care and biomedical corporations and that the Kantian philosophical argument is an attempt to cover up researchers' greed for profits with a pretense of concern for their patients' well-being.

However, there is a legitimate philosophical difference between selling raw biological materials and selling altered or engineered goods. To illustrate this, Swain and Marusyk, both lawyers in biotechnology law, have proposed a three-tier construct to differentiate between cells within the person, in their natural form outside of the body, and in a new, altered form outside the body. They argue that cells within the body constitute a part of the human persona and, given the aforementioned Kantian principles, shall not be sold. Cells temporarily removed from the body (such as those being transplanted into another body), they claim, shall be deemed *res nullius* while outside the body—they belong to no one because they are no longer within the context of a persona. Thirdly, certain cells permanently removed from the body (such as biopsied tissue) can be deemed *res communes omnium*, common property of humankind. If these cells are combined with high technology, researchers can alter them to generate property rights over the transformed product.

The second category, *res nullius*, includes the raw biological materials that tissue advocates claim patients should be able to sell. But, because of the *res nullius* classification, these tissues would be disqualified from sale for profit. Why, then, is it that patients cannot make any money from their *res nullius* tissue, but corporations can make billions on *res communes omnium* materials? Swain and Marusyk clarify by saying, "A key distinction between matter deemed *res communes omnium* and *res nullius* is that the latter need not be transformed in any way to be useful to humankind: it functions in much its original form" (Swain and Marusyk 45). This differentiation reflects reasoning according to the Lockean labor theory: since labor is viewed as belonging to a person and raw materials as belonging to all of humankind, once a person combines his labor with raw materials he has created a new product that belongs to him alone (Swain and Marusyk 45). In this way it is possible to ascribe property rights to cells that previously legally belonged to no one. Thus, it is not philosophically inconsistent to prohibit patients from selling their raw biological materials but to allow researchers to benefit from the sale of goods derived from those same materials. Since researchers put in the work to fundamentally change the biological materials, they should have the right to profit from the cell lines and other technologies they develop.

Philosophical considerations aside, the patient-as-vendor approach is not the solution. Despite tissue advocates' claims that the patient-as-vendor approach will help re-appropriate costs and benefits more equally in favor of patients, research suggests

otherwise. In 2003 *The International Journal of Economics* published a study that suggests that even if patients were permitted to sell their body parts, they would not actually gain a significant financial benefit. According to the study, “the economic models demonstrate the probable outcome of falling organ-selling prices” (Kolnsberg). Though this study looks specifically at the sale of organs, the same logic can be applied to the sale of other biological materials; as the supply of biological materials increases due to financial incentive, the demand for those materials will fall. Consequently, the price of the materials will also decrease, providing patient-vendors with little profit. Thus, an open tissue market would fail to resolve the economic inequality between patients and researchers.

To the contrary, the study suggests that introducing a new tissue market would likely increase the existing economic gap. Though patients would earn some money from the sale of their tissues, in the long run the profitability of such a market would fall not to the patients, but instead to third parties. These third parties would include tissue brokers, coordinators, and transplant facilities, and they would have the ability to influence the supply, distribution, and price of tissues. Were a patient allowed to sell her cells, she would have to go to a transplant or other surgical facility to have her cells removed. Following the procedure, she would sell her cells to a broker or coordinator who would, in turn, sell her biological materials to those researchers or doctors that desired them. Serving as the middlemen, the third parties would be able to alter prices—they could lower the price they paid the patient and/or increase that which they charged customers—to ensure their own profitability. Furthermore, while the profit the patient stood to make would be limited by the volume of cells that her body produced, the third parties would be able to draw from a large pool of patient-vendors, making their opportunity for profit relatively unlimited (Kolnsberg). Third parties’ profits would clearly outweigh those of patients’, defeating tissue advocates’ purpose in creating this new tissue market in the first place.

In addition to increasing the economic gap, allowing patients to sell their tissues would also socially marginalize the poor. Some might argue that any compensation is better than none. But for the poor, a small remuneration has greater potential for coercive effect than it does for lasting compensatory effect. Kolnsberg explains, “In the long run, only the poorest and most destitute would be willing to sell [a body part] for depressed selling prices” (Kolnsberg). The poor, given their financial disadvantage, are willing to accept lower standards to acquire income. In the case of tissue sale, the poor may tolerate lower prices for their biological material, though they may not feel it is fair compensation. Furthermore, impoverished individuals who see the sale of their body as the loss of their dignity may nevertheless feel compelled to sell their tissue so they can support their families. While, in theory, the rich and

the poor would have equal autonomy in an open tissue market, in practice, the poor would experience less freedom in deciding whether to sell themselves given their lack of other viable options for acquiring income.

Having demonstrated that the proposed tissue market falls short of increasing patient rights (and economic status), I now propose that stricter regulation and enforcement of informed consent would be more effective at minimizing patient exploitation. The best way to increase patient control is to allow patients to make more enlightened decisions about whether to donate biological materials removed from their bodies. These decisions should be made while the materials are still within the body (i.e. before they acquire *res nullius* status), and they should be informed by full disclosure and driven by medical, spiritual, and cultural considerations. Money should never be a reason. Increased financial profit does not increase a person's ability to make reasoned decisions about his or her body; knowledge, on the other hand, gives patients power by helping them to understand their choices and choose what is best for them. Thus, doctors should be required to have a discussion with their patients prior to surgery about their options regarding the legacy of their cells. They should explain the implications of cell donation to the patient in a way that the patient can understand. How exactly to ensure patient understanding is a topic worthy of its own discussion, as "understanding" may have different meanings depending on each patient and his education and upbringing. The idea is, though, that doctors must take the time to discuss the process of cell donation in terms accessible to an average patient, yet in enough detail that the patient feels confident making a decision about the future of his biological material. Furthermore, the doctor should be required to reveal any stake, economic or otherwise, she or he has in the research that the donated cells may be used in. This way, if patients feel that their doctor has a conflict of interest, they can seek out a second opinion. These efforts to increase transparency in the medical process will help ensure that consent to donate is truly informed.

Another issue that has arisen in the discourse of informed consent is whether patients should be allowed to indicate which types of research their cells are used for. I argue that giving patients this right is unnecessary. While allowing patients to choose specifically how their cells are used would grant them even greater control over their bodies, it is impractical to implement such a practice in the research world. The science community is a collaborative one. Scientists share ideas and materials, working together to make important advancements in their field. Though a patient may entrust his or her cells to one researcher, it is quite possible that their cells could end up, as Henrietta Lacks's cells did, in labs across the globe. Giving patients the right to decide what types of research their cells are used for could prohibit this natural flow of ideas and restrict scientific advancement. Allowing

patients to decide strictly whether or not their cells can be used for research is sufficient. And, if patients are concerned about the types of research their cells will potentially be used for, they can simply opt for their cells' disposal as medical waste.

The proposed tissue market, though well-intentioned, is an unethical approach to tissue procurement. At first glance, it appears to maximize patient control by

In practice, a sale-for-profit model would introduce monetary coercion and draw even more people into an even more exploitive situation.

granting patients property rights over their bodies which, in turn, allow patients not only to control what is done with their tissues but also to profit from those tissues. This idea is tempting because it gives the illusion of being able to reconcile a financial disparity between researchers and patients. However, in practice, a sale-for-profit model would introduce monetary coercion and draw even more people into an even more exploitive situation. The best thing we can do for patients is maintain and

enforce informed consent regulations so that all patients can be empowered to make their own best decisions about their bodies, protect their own interests, and preserve their own inherent human dignity.

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Author's Biography

ANDREW STOKER

Andrew Stoker is an Economics and Psychology double major from Lexington, Ohio. His essay “Fighting Poverty: A Business Based Solution” combines his interest in both of these fields. The essay proposes how businesses can be a very powerful source for social good by creating a mutually beneficial relationship with the world’s poor. By involving businesses in a realm usually reserved for charities, we can lay the economic foundation necessary for bringing the poor out of poverty. Upon graduation from Notre Dame, Andrew hopes to work in finance or business. Andrew would like to thank his Writing and Rhetoric professor, Elizabeth Capdevielle, for all of her support throughout the semester.

Fighting Poverty

A Business Based Solution

ANDREW STOKER



In 2011 alone our nation donated 298 billion dollars to charitable organizations. This may sound significant, but it translates to roughly 2% of America's GDP ("Giving Statistics," Charity Navigator). While we enjoy some of the greatest living conditions in the world, there are 3 billion people globally living in the figurative "bottom of the pyramid," a term that describes those who live on less than 2.50 USD a day (Shah, "Poverty Facts and Stats"). This group overlaps with some of the worst of the world's problems. In 2011, for instance, there were almost 1 billion people struggling with hunger ("2012 World Hunger and Poverty Facts and Statistics"). Despite our donations to charity, many severe social problems persist. Meanwhile, American businesses reported 1.68 trillion dollars in profit in the fourth quarter of 2010 (Oak). With 73% of total charitable donations coming from individuals, roughly 5% come from corporations ("Giving Statistics," National Park Service). Should for-profit businesses have a greater responsibility to improve social welfare? After all, "Corporations are people, my friend" (Romney). Because of their massive economic power, businesses are in the greatest position to catalyze a global improvement of social welfare in the 21st century.

The monetary amount of charitable donations is far less than the monetary volume of business transactions conducted every year. With so much money moving through the private sector, there is potential to leverage some of that volume and create economic opportunities for those in need around the world. However, for-profit corporations are not currently focused on doing social good. A concept often confused with corporate philanthropy is corporate social responsibility (CSR). CSR helps to define how businesses responsibly interact with stakeholders, customers, and society as a whole by adhering to laws, ethics, and social norms (Berkhout). This concept is an important part of every responsible business model; however, it is far from social

welfare. There is no accountability for CSR beyond obeying government laws and maintaining a positive company image to the public, making CSR is an inherently flawed system for social change. Because there are no standards of judgment and no rewards for doing real good, companies often abuse CSR for marketing purposes. They make very small social efforts while advertising themselves as powerful agents of social change, a concept called greenwashing (“Greenwashing”). In reality, CSR seems to hold little importance in the minds of consumers. Evidence of this is Nike, which is one of the largest companies in the world. Nike uses sweatshop production for majority of its goods, pays dismally low wages, and mistreats employees. Despite these clear CSR violations, Americans favor this sports giant and continue to purchase its products. In a way, purchasing a company’s products is directly supporting their means of production. David Vogel, Solomon P. Lee Chair of Business Ethics at the University of California Berkeley, sees CSR as mostly demand driven. Businesses can choose not to engage until the point where there is a public demand for involvement that is aversive to profits (Kinsley 260). If CSR has few incentives, and the public generally doesn’t care except in cases of extreme media publicized violations, corporations need a different motive for engaging in social welfare goals.

As capitalism tells us, corporations are in business solely to make money. Likewise, shareholders invest in corporations solely to make a profit. When shareholders buy stock in a corporation, they become partial owners and are entitled to a share of the company’s profits. With this ownership also comes the risk of losing their investment. Shareholders are able to choose a board of directors, who then select managers that are most inclined to pursue profit. If the shareholders are dissatisfied, they will select a new board of directors that will earn them more money (“Business”).

These for-profit companies interacting with impoverished people have the opportunity to make a profit while also invigorating economies in undeveloped regions.

Therefore, it seems to be in no one’s direct interest in the business world to pursue social welfare objectives because it may result in loss of money on investments or loss of a job.

This profit incentive is the reason most current businesses do not engage in social welfare, and it is also the reason corporations have the ability to effect many positive social changes in the future.

The bottom of the pyramid is a largely untapped market of over 3 billion people (Shah, “Poverty Facts and Stats”). With so many customers, despite their low incomes, there is a large potential for profit. Companies looking to profit in this area will need to engage in new sales formulas selling large volumes at very small margins of profit per item (Simanis). These for-profit companies interacting with impoverished people have the opportunity to make a profit while also invigorating economies in undeveloped regions. We have enormous

potential to expand on the good that charity does, but without a successful shift from the private sector to addressing social problems in struggling target markets, we will continue to see poverty and starvation in America and around the world.

In this paper I will examine the potential for using the profit objective of business entities for the global purpose of increasing the economic wellbeing of the poor. I will begin by establishing the differences between nonprofit and for-profit entities in our current system. I will then explain why charities, although important, are restricted in their scope for dealing with global issues. This will lead to discussion of the benefits of a business based solution that can create long term economic improvement. I will briefly give both psychological and economic reasons supporting a business based approach, and finally explain the motivation for businesses to get involved with this proposed solution.

To understand why businesses are an essential supplement to charities for addressing social problems we must first examine the state of our current system. The characterizations of nonprofits and for-profits in our legal system leads to different approaches to raising capital and different measures of how much money should be spent directly on charitable causes versus administrative and other costs. Charities are a specific type of nonprofit organization run in service of the public interest. One benefit of charities is their tax exempt status granted by the IRS. This means charities are eligible for state sales, property, and income tax exemptions, and if federal requirements are met, exemption from federal income tax. Tax exemption allows the largest possible amount of charitable money to reach the cause ("Charitable Organization"). There is often a misconception about charities that employees are not paid. While charities do utilize volunteers as much as possible, they are still made up of paid employees. Unlike large corporations, however, charity directors do not earn huge bonuses, an act that would no doubt be detrimental to the charity's image and cost them their tax exempt status. The median pay for charitable directors in 2010 was \$150,000 ("How Much Do Charity Leaders Make?"). Charities raise money through fundraising events, donations, marketing partnerships, and sales of branded goods. The profit made by charities is either used to expand the work of the organization or to directly help the cause the organization is established to aide. Charities are never completely owned by a single person. Control is given to a board of directors which can be self-perpetuating, elected, or appointed by a third party ("Charitable Organization"). By contrast, corporations, as capitalism defines them, are in business solely to make money. Corporations pay income tax to the Federal government, just like individuals do. Corporate CEO's are in the position to earn huge salaries and bonuses. Median pay for CEO's from the top 200 national firms in 2011 was \$14.5 million, not to mention the money they have available in stock options (Popper). At the most basic level, companies make money by selling goods

and services to the public, and the owners of a large publicly traded corporations are the shareholders.

With background on the differences between nonprofits and for-profits, we can begin to see the challenges charities face when compared to for-profit entities. Common sense and our capitalist system tell us that the best corporate leaders will go where the money is, to the private sector. This lack of incentive for talented management puts charities at a disadvantage. However, people are often reluctant to donate to charities that seem to overpay their leaders. The website Charitynavigator.org, a charity watchdog, argues against this problem with the statement:

Before you make any judgments about salaries higher or lower than this average, we encourage you to keep in mind that these charities are complex organizations, with multi-million dollar budgets, hundreds of employees, and thousands of constituents. These leaders could inevitably make much more running similarly sized for-profit firms. Furthermore, when making your decision it is important to consider that it takes a certain level of professionalism to effectively run a charity and charities must offer a competitive salary if they want to attract and retain that level of leadership. (Heck)

The cause of this leadership deficiency is related to the negative perception of charity overhead. Dan Pollata of Harvard Business Review calls it the worst question to ask about charities, “What percentage of my donation goes to the cause?” In our current system, donors love to hear how little a charity spends on management and fundraising. The lower the percentage, it appears, the better the charity. Pollata argues, however, that by not investing more money in fundraising, charitable growth is stunted. He says, “A world in which 10 to 15% fundraising ratios are the norm is a world in which our charities are woefully too small to confront social problems

Although charities are useful for certain problems, such as health related research and natural disaster relief, they do not provide the benefits of economic growth that businesses can.

on any meaningful scale.” Much of the negatively viewed spending on management and overhead is actually very necessary for charity growth and impact. Our current system leaves charities deprived of some of the best leaders and little room to increase their scale.

Although charities are useful for certain problems, such as health related research and natural disaster relief, they do not provide the benefits of economic growth that businesses can. Charities are at a

fundraising disadvantage when compared to publicly traded corporations. Because they cannot issue stock to raise money, growth is severely limited. However, because businesses issue stock, they cannot directly engage in charitable activity. Company

management and shareholders can be expected to have a large diversity of charitable interests, and corporate donations may disagree with the views of various parties. Even if a business were to distribute money for employees to donate themselves, to the individual charity of their choice, it would be at the price of economic efficiency (Kinsley 259). Therefore, business must develop a different approach from nonprofits for addressing social problems. Luckily, businesses can provide the economic change that charities cannot. As the popular adage teaches us, “Give a man a fish he eats for a day, teach a man to fish he eats for a lifetime,” simple donations may not be enough. By donating money to world hunger we may feed people for a short time, but a long term solution is developing economies, thus allowing entire communities to thrive and become self-sustaining. This is a natural step to improving living conditions as well. We must stop attacking the symptoms of the problem through charities and start addressing the real issue of poverty with economic solutions (Shah, “Solving World Hunger Means Solving World Poverty”).

We know that dealing with poverty is especially important for solving world hunger because global food shortage is not the cause. There is physically enough food produced to feed everyone on Earth. However, this food is unevenly distributed. “Access to food and other resources is not a matter of availability, but rather of ability to pay” (Copeland). Anup Shah of globalissues.org says that fighting hunger in the typical charitable way will actually be more costly in the long run because resources that could be used on long term solutions are used on making short term impact (Shah, “Solving World Hunger Means Solving World Poverty”).

Some critics of the bottom of the pyramid technique argue that we should view the poor as producers instead of consumers and focus on buying from them. Emphasis on this new target market may lead to the creation of false necessities, that is, creating demand for goods that people don't really need. Viewing the poor as consumers, some argue, may also put local vendors out of business (Benn). However, the small risks of these problems are far outweighed by the rewards, and it is more likely that local vendors will benefit from corporate involvement. The book “Key Concepts in Corporate Social Responsibility” by Suzanne Benn, a professor at Maquarie University, and Dianne Bolton, an associate professor at the Swinburne University of technology, emphasize the importance of local capacity. Training local entrepreneurs and using already established institutions for product distribution is a vital part of any business plan targeting the bottom of the pyramid (Benn). One example of using local capacity for product distribution is a company called Living Goods. It is successfully targeting the bottom of the pyramid with a variety of beneficial products including soap, de-worming pills, iodized salt, condoms, nutritionally fortified foods, kits for clean delivery of babies, malaria treatments, bed nets, high-efficiency cookstoves, and solar lamps. Living Goods is a micro-franchise, and sells its products

by training locals as representatives. These representatives act as distributors, and intermediate between the company and their region. This micro-franchising model allows for a wealth of local job creation and social benefit (Rosenberg).

Merit for a business based solution to poverty can be found in both psychology and economics. In economics, there is the concept of specialization, individuals concentrating their productive efforts on a limited range of tasks (Johnson). In America, for example, instead of every family hunting or growing their own food, we have a small number of farmers and food producers that provide for the rest of the population. This frees other members of the society to specialize in areas they are more talented. As everyone in a society begins to focus on different skills, they begin to rely on each other to fulfill basic needs and develop a trade interdependence. Each individual becomes more proficient at the narrow task they are focusing on, and the output of the community as a whole rises. Eventually, members can become specialized as teachers, and the education level of the entire region will rise, a vital element to economic success. Specialization is one of the first steps to creating a thriving economy. The reasons for specialization can be explained by psychology. Maslow's hierarchy of needs states that one cannot progress to higher level needs until lower level needs have been fulfilled. In regions struggling with hunger, meeting the most basic level of biological needs: food, water, and shelter, may never completely happen (McLeod, Saul). From Maslow's hierarchy we know that companies looking to sell to this target market must design products that first deal with the most basic needs of food, nutrition, shelter, and safety. Once economies begin to develop in these areas, specialization can begin to take effect, and people can begin to focus on higher level needs, the signs of a developed society.

This new target market doesn't just benefit the bottom of the pyramid, it benefits the companies as well. This shift of business to a more social role in society is plausible because businesses respond to incentives. We know that businesses exist solely to make a profit, and there is definitely a profit to be made from this new approach. The Coca-Cola Company is an excellent example of the benefits of global outreach. Coca-Cola offers over more than 500 brands in over 200 different countries and enjoys a powerful 53.1% of the global soft drink market share (Pham). Coca-Cola's strategy has been so successful that they are one of the 30 blue chips stocks used to calculate the Dow Jones Industrial Average. Advocates of inclusive capitalism, business solutions that include everyone, especially the poor, also note that saturation of high and middle-income markets can be a cause for shift to this new target market. This shift also answers a global call for equity and fairness with access to resources (Benn). For businesses, selling to socially underprivileged groups is an opportunity to profit while also bolstering positive self-image at home. With the primary incentive of profit, and a marketing incentive that indirectly leads to profit, I

have no doubt businesses will respond in creative ways to address this target market and thereby increase global welfare.

It is important to note that involving businesses in bottom of the pyramid markets is not the same as outsourcing, a concept heavily disputed in the United States. Outsourcing places American jobs at risk by sending them overseas. An example of outsourcing is sending a computer programming job to India for less money, and putting a computer science major out of work in America. Targeting bottom of the pyramid markets does not take away American jobs, and will in fact create jobs worldwide. Companies will be developing products beneficial to impoverished regions, and increase their revenues through increased sales. Companies may even add domestic jobs to address and expand their bottom of the pyramid marketing efforts.

The fact that corporations are motivated by profit incentives gives us hope that they will be able to act as long term economic solutions for the worst of our world's problems. As Bill Gates said in his 2008 speech at the World Economic Forum: "In a system of pure capitalism, as people's wealth rises, the financial incentive to serve them rises. As their wealth falls, the financial incentive to serve them falls – until it becomes zero. We have to find a way to make the aspects of capitalism that serve wealthier people serve the poorer people as well" (Kinsley 9).

Gates is right. We must take steps to align the monetary interests of business with the interests of the poor. In this, we will be fighting for a common goal. The profit incentive is there, and it is time to take action. Managers must be made aware of the profit potential that exists by bringing business to the world's poor and be encouraged to reach those people, before the incentive reaches zero. In the future we may see bottom of the pyramid marketing techniques strongly integrated into college business curriculums, and as this conversation continues, hopefully see businesses provide the long term economic growth that is necessary to eliminate poverty around the world.

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Author's Biography

SABINE MOSAL

Sabine Mosal is a member of the University of Notre Dame class of 2015 pursuing a major in Science-Business and a minor in International Development Studies. She currently lives in Saint Johns, Florida, but spent a lot of time growing up in Germany and South Korea as a child of two parents in the Army. The time spent away from her extended family and abroad led her to identify more with her immediate cultural surroundings. With a mother who is African American and a father who is of Scandinavian and German descent, she never felt the need to identify with a single race or culture. However, after moving to the United States in her pre-teen years, she felt increasing pressure to choose to represent a single part of her cultural heritage. This pressure inspired her to find pride in herself and her heritage despite society's ideal of beauty. Today she is interested in healthcare and health disparities, especially in marginalized populations, and achieving health equity. She hopes to have a career that involves promoting a greater well-being for those in need through public health policy. She is extremely grateful to her professor, Dr. Julie Bruneau, for her support and guidance in her academic and personal research toward this essay.

Chasing Beauty

SABINE MOSAL



Some people struggle in their teens to figure out where they fit in. This journey of self-discovery commonly continues through college as young people grow into the identities they will inhabit for the rest of their lives. But my identity crisis began as soon as I got hold of a mirror. Within my own family, no one is the same color. My mother is black, my father is white and my older sister was always significantly darker than me. Growing up in South Korea in this biracial household was enough to leave me confused about my identity. Outside of my home, I saw few people who resembled my combination of yellowy-golden skin and curly, frizzy hair. Since the 6th grade I have chemically straightened my hair and have made every effort to tan my skin from the sun. In college, however, I began to evaluate my actions. Why did I hate my hair? Why did I think I was too light? I now carry these questions further, turning them to the African American community. Why do so many black women chemically straighten their hair? Is someone who is equally black and equally white—with parents of each race—any less “black”? Also, why are the features that were given to me and not earned, lighter skin and longer hair, so prized in the African American community? As I try to discern my identity within the African American community, which I recently joined, I try to answer these questions through research, exploring discrimination among skin colors, the politics of a black woman’s hair, and racial identity itself. It is important that we women of color consider our motives for our cosmetic choices; we must know whether they are simply personal choices or actions of racial shame.

I did not have any role models around me who resembled my looks. My mother has chocolate colored skin and black, shaved hair. Korean people or white people surrounded me outside my home. Around third grade I began to hate my hair. It was always too big or too frizzy. All I wanted was hair like everyone else’s. They didn’t

have to worry about it poofing up or having to keep it in braids. Their hair blew in the wind, and they simply brushed it out of their faces. They could coolly run their fingers through their hair and swing their ponytails when they walked. The only way I could like my hair and feel pretty was if it was straight, and the only answer was to get a perm. My mom didn't want to let me perm my hair because she thought my curls were pretty and cute. But she didn't understand because she

*Am I really trying to fit in?
Fit in with whom?*

didn't have curly hair. And I was past being cute. I couldn't wear my hair in braids or a little puffy ponytail any more. I was twelve—not six. From sixth grade until today I successfully avoided my curly hair. However, since I have been in college, I have

noticed a few black women with their hair curly in its natural form. This has led me to wonder why I have permed my hair. Am I really trying to fit in? Fit in with whom? I know that I am among the majority of black women who chemically straighten their hair. Noticing this trend, I take a step back and ask, "Why?"

Among the black community, straightening one's hair is considered a political act by some, and just a personal preference by others. Human rights activist and journalist Frederick A. Meade writes, "To abuse one's hair, whether by straightening comb or through the use of chemicals, in a futile attempt to obtain and maintain a pseudo image of a European woman, is to surrender to a power which the individual feels is greater than herself" (Meade para. 12). Meade's statement has opened my eyes to the idea that my decision to straighten my hair may have been a subconscious act of racial shame. After all, until high school I was not black, I was mixed. In light of Meade's analysis, I have begun to see my hair straightening as an act of shame and have thought about going back to my naturally curly hair. Along with Meade, others also view how African American women style their hair as a political decision. In *Time*, Jenee Desmond-Harris, an African-American writer who analyzes issues involving race, politics, relationships, and beauty, uses the example of the drama surrounding Michelle Obama's hair to show that what a black woman, especially one of power and influence, does with her hair is political. Tracey Owens Patton, an associate professor at The University of Wyoming who researches the correlation between race, gender, and power and how they relate to education, media, and speeches, remarks that historically, black women straightened their hair to elevate their social status (Patton 26). Straight hair, as opposed to "nappy hair," was more presentable, looked more "white" and could give a field slave the opportunity to work in the house:

During slavery, Black women who were lighter-skinned and had features that were associated with mixed progeny (e.g., wavy or straight hair, White/European facial features) tended to be house slaves, and those Black women

with darker-skin hues, kinky hair, and broader facial features tended to be field slaves. (Patton 26)

Today, straighter hair still offers work-related advantages, as it is viewed as more professional than curly hair. On the other hand, when deciding whether to grow out my straightened hair, I remembered that my straighter hair was much more convenient and less time-consuming. Both of these considerations are pragmatic, rather than political. Meanwhile, further research reinforces my own sense that what I decide to do with my hair is not necessarily a political decision. In “Why African American Women Try To Obtain ‘Good Hair,’” sociologist Whitney Bellinger writes, “No longer is hair only a marker of what status one has, it is now a marker of individual personality, and a matter of convenience” (Bellinger 71). When deciding how to style my hair, I must remember the historical politics of hair straightening but also remember that in the end it is my personal decision whether I choose to style it naturally or straight.

When it comes to making decisions about our hair and skin, women of color should be aware of certain trends in dating: people are often attracted to partners whom they resemble or with whom they perceive some connection. When I was a child, I didn’t see myself as black. I identified myself more with my white father and the other white children that surrounded me, rather than with the black children—they seemed to be too different from me. For this reason, I did not feel any attraction to the few black boys who showed up in my life as a child. Yet whenever there was a black boy in my class or at my summer camp, he would have a crush on me. I wondered how the boys could feel this way, never having spoken to me. Why were these crushes so predictable? I quickly learned that it was my caramel-colored skin and long hair that were so alluring. Kathy Russell, Midge Wilson, and Ronald E. Hall, authors of *The Color Complex: The Politics of Skin Color Among African Americans*, write:

Go to any Black nightclub and observe how fast men’s heads turn when a light-skinned Black woman crosses the room. Yet ask these same men whether color prejudice still affects the Black community, and most would insistently deny that it does. From personal experience, African-American women usually know better; they know that most Black men prefer their women to be ‘light, bright, and sometimes White.’ (Russell et al. 107)

To help explain black men’s preference for lighter skinned women, the authors quote Spike Lee, who says that the media’s depiction of beauty in the form of a White woman has consciously and unconsciously affected what Black men view as beauty and has steered them toward light-skinned women with long hair (Russell et al. 109). The authors add, “for the dark-skinned Black man, having a beautiful

light-skinned woman at his side instantly communicates to others that he has ‘made it’” (Russell et al. 109). To return to my own experience, after a few relationships in high school, I began to wonder whether the boys I was dating were interested in me, or only in the looks that God gave to me. Sometimes I just felt like a prize to those boys instead of a girl with an entrancing personality. These examples show how skin color and hair influence dating preference and how women of color are affected in the dating arena.

In the black community, whom you date or mate with is not just preference; it becomes political (Russell et al. 108). A black man who only dates light-skinned or white women is often accused of having a color complex. Or, if he only dates dark-skinned women, people may say that he can’t do “better” or that he is trying to get back to his “roots” (Russell et al. 108). Russell, Wilson and Hall cite black historian Paula Giddings, who argues that interracial dating began during the civil rights movement when liberal white women from the North moved south. The authors also advance another status-related theory:

[T]he fact that White women were historically forbidden to Black men made them much more desirable. It was a ‘power trip’ for a Black man finally to possess this ideal beauty; at last the shoe was on the other foot—he was now the master and she the slave.” (Russell et al. 113)

As women of color, it is imperative that we acknowledge the historical impact of slavery on dating trends instead of blaming our “blackness” for what seems to be rejection from our own men. The authors further make sure to note that not all black men are attracted to women who are lighter than themselves. Some black men pursue darker-skinned women because they seem to be less “stuck on themselves.” Light skinned men sometimes marry darker women so that their children can look unmistakably black (Russell et al. 114). It is a shame that some people choose whom to marry based on the color of skin their children will have and the politics that surround it.

Along with their argument about why people in the Black community make the dating decisions they do within the community, the authors of *The Color Complex* introduce a theory of why African-Americans marry outside their race. Some may do so to elevate their social status or to claim proof of their success. Others may do so because of limited opportunity to meet other high-status blacks. Russell, et al. also mention interracial dating from the other perspective—white men with black women.

Some white men are drawn to women with undeniably black skin and Africanized features, finding them exotically different. Of, course, others limit

themselves to black women with light skin and long hair, perhaps because they are more comfortable with looks that are relatively familiar. (Russell et al. 119)

The former may have been the case with my father, who left his home state, North Dakota, which he describes as homogenously blonde-haired and blue-eyed, and married a chocolate-skinned, black-haired, southern woman. The authors conclude this chapter, "Dating and Mating," by urging people to consider more than skin color when they choose someone to date or spend their life with. This brings me back to my experiences with dating that I described earlier. Some of those boys may have been attracted to my physical features because of what society has taught them about color. For others, this may not have been true. It is important for women of color to recognize when our physical features become politicized to avoid being exploited for other people's superficial idea of beauty.

Today's American women of color have experienced the same idealization of European beauty that affects the dating scene since early childhood. Black children are taught at an early age that their physical features are inferior. In an effort to demonstrate this kind of self-hatred, Kenneth and Mamie Clark performed a test on young black children using dolls. When asked to play with either a white doll or a black doll, the children almost always chose the white doll, which they called "pretty" (Russell et al. 63). In the 1940's Charles H. Parrish's study of a group of Latino, white, and black teenage students found that "in general, light to medium skin tones were linked to intelligence and refinement, while dark skin tones suggested toughness, meanness, and physical strength" (Russell et al. 66). These attitudes are still prevalent. "Many believe that light skin is feminine and dark skin is masculine, and very light skinned boys and very dark skinned girls often suffer from being at odds with this cultural stereotype" (Russell et al. 66). As women of color we must resist society's obsession with skin color and embrace others and ourselves regardless of color.

As a reaction to the constant reminder of society's preference for white features, many black women have made the effort to adapt to these standards by straightening their hair or lightening their skin. When I began straightening my hair in 6th grade, I also may have been adapting myself to fit these standards of beauty. However, recently traditionally ethnic features, such as larger lips have become more popular:

When a thin-lipped White actress gets a collagen injection to give her a more sensual Negroid-looking mouth, or when a White rock musician wears dreadlocks for a more "street-wise" appearance, it is simply not the same as when a Black woman straightens her hair or goes to great lengths to avoid prolonged sunlight. Whites can dabble in practices that make them appear more Black,

but for many African Americans embracing Whiteness is a matter of economic, social, or political survival. (Russell et al. 54)

The singer Beyoncé may be viewed to possess all of society's current ideals of beauty with her constructed combination of natural curviness and bronze skin as well as long, wavy blonde hair. Her wavy blonde hair may be an effort to reach a larger audience or simply a personal preference. Either way, it is important that she recognizes the political implications of her decision. As a black woman of influence, she can contribute to how other girls of color view beauty and how they view themselves.

Although my research thus far has made light-skinned women seem like they are in the best situation, other light-skinned biracial people also feel alienated from other blacks. Kathleen Cross, a black woman who possesses noticeably white features, tells her story of being trapped in a white woman's body. "Although my skin color has shielded me from being that target of White racism, it has also created for me one of the most painful human conditions, a lifetime of being misperceived and initially rejected by my own people" (Russell et al. 74). Today, racial identity in America is defined by the one-drop rule, which says that only one drop of African blood is needed for a person to be black (Russell et al. 74). The authors note that, "in most societies, ethnic and family culture is transmitted through the mother. As a result, Black-White biracial children whose mothers are Black may find it easier to conform to societal expectations of their racial identity than those whose mothers are White" (Russell et al. 76). This quote should describe my experience; however, I did not find it easy to identify myself as black partly because my mother did not emphasize the significance of color and the cultural expectations that surround being black. Biracial persons often feel alienated or confused with respect to racial identity. Some believe that if a person identifies as multiethnic then he or she cannot be black. The writer and Assistant Photo Director for BET.com, Julissa Escobosa, noted that she has always loved her brown skin. She also wrote that her sister was always admired for her light complexion and beauty. As it turns out, her sister was not happy about being light-skinned. "I wish I was darker. People automatically think I'm stuck up and that I can get anything I want because I am light-skinned, and its so annoying because it isn't true. When I am around some black women, I get a vibe that they think I'm not 'black enough'" (Escobosa). After the author heard her sister's perspective of the color complex, she began to see that it works both ways. Escobosa also quotes a 24-year-old law student from Detroit, Valerie, who said, "I have never liked being light, I am always mistaken for being Caucasian. All my life I have been praised for looking like a race that I am not, and I get the most shocking reactions when I tell people I am 100% African-American. I have always had a desire to look 'Blacker'" (Escobosa). Escobosa concludes by reaffirming that society will continue to view darker women as not light enough and lighter

women as not dark enough. She ends by motivating the audience to appreciate the beauty of diversity instead of perpetuating the historical discrimination of color. I can identify with the perspective of these light-skinned and mixed women in that it is challenging, to be accepted for simply what we are. As women of color, whether by the one-drop rule, personal identity, or by physical appearance it is important to remember that we are complex individuals who do not need to identify ourselves in terms of society's idea of mutually exclusive "races."

The identification with a race often has more implications than simply physical appearance or ideas of beauty. When I was little, I was not "black." I was mixed. I knew that my mother is black but I did not identify the same way. It was not until I came to the Seminar for African American Scholars, a weeklong academic summer program at Notre Dame before my senior year in high school, that I actually felt black. There, thirty-nine brilliant African American scholars from around the country who had experiences similar to mine surrounded me. They, like me, were often the only black student in their class and had never met other intelligent, ambitious black peers. Before then, I felt like I wasn't like black people. I didn't look like them, talk like them, like the same things or dress the same way. I also didn't listen to the same kind of music, which is a large part of African American culture. My family used to visit Charleston, South Carolina to see my mom's side of the family, who is black, every few years. Even when we were there, I felt like my cousins were different than me. I didn't fit in with my family, which made me feel even more rejected by both races. I was too black for the white people and I was too white for the black people. It may be here, at Notre Dame, that I made my first black friends. Identifying oneself as black may be challenging for those who are not part of the culture that society attaches to African Americans. This makes it even more challenging for women of color to identify to an individual race.

*The identification with a race
often has more implications
than simply physical
appearance or ideas of beauty.*

Over the course of my research, I have tried to figure out why, for most of my life, I have avoided my naturally curly hair and rejected my black heritage. In college, when I began to evaluate my actions and had joined the African American community, I realized that these issues were much larger than myself. Many women of color who find themselves in between categories of ethnic and racial identities struggle with where they fit into society's idea of race and beauty. The authors of *The Color Complex* write, "Dr. Barbara Love of the University of Massachusetts believes that racial identity in America is sociopolitical, not biological or genetic. According to Love, racial categories, while clarifying nothing, perpetuate a system of privilege based on race" (Russell et al. 78). They agree, believing that, "Were it

not for this artificial grouping, part of the legacy of racism, Blacks might not criticize each other so harshly for having skin or hair that does not meet some arbitrary standard" (Russell et al. 80). As I evaluate myself as a child and an adolescent I consider the factors that may have contributed to my struggle to racially identify myself and to straighten my hair. My research has shown that my environment as well as society's ideal of beauty may have led me to hate my naturally curly hair because it did not reflect what I learned to be beautiful. My interactions in the dating scene may have been affected by the historically higher social class of lighter-skinned people as well as the current effects of color superiority. As I reflect on my decision to chemically straighten my hair, I realize now that this decision that many other women of color make can be viewed as an act of racial shame. When we alter our image in a way that would make us look more European, we must be aware that some may interpret it as racial hatred. I urge that as women of color, we evaluate the motives of our cosmetic decisions. It is vital to our esteem and self-respect to not try to emulate society's ideal of beauty, but rather to love ourselves and to live in a way that makes us feel beautiful. Then, the decision to chemically straighten our hair is not an act of racial shame. In this case, what we do with our hair is not political. At the end of the day, we are the ones who have to live with our hair, not society.

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Author's Biography

CHARLES LABUZ

“Why I Couldn’t Sleep” was authored by Charles Labuz, a Business and English major. He is an aspiring writer who also hopes to find a niche in the world of finance, and possibly combining these studies, become the John Grisham of finance. This essay is a personal narrative illustrating an instance of displacement in Charles’s life. The event detailed is one that actually happened to the author when he was in the fourth grade, and which he still carries the effects of. This instance of childhood malice has been permanently imprinted on his memory. Charles hopes to convey this through visceral descriptions while avoiding embellishment. He would like to thank Professor Kelly for his guidance in improving his writing and for assigning a piece that allowed him to write outside of a purely academic form.

Why I Couldn't Sleep

CHARLES LABUZ



Laughter rings out from the front yard. I shuffle my feet down the gangway alongside the barn-red siding of our urban house. I move nervously towards the edge of the home, curious to see what the commotion is. Peels of laughter split the air again, freezing me in my tracks. Several voices are discernible, but only one so uniquely that it is unquestionably Kevin. It is a slower laugh, it comes later than the rest and lasts longer than any of the others, and it is distinctly autistic. I creep to the front right corner of the house and peer around the edge through the shrubbery. I see the boys from the basketball team, kids who I think are cool, kids who I want to be my friends. Kevin lays spread-eagle in the grass as the other boys kneel, clutching their sides as if they will actually explode from their ignorant laughter.

“Do it again, Kevin. C'mon lets see it,” came the encouraging cry of the ringleader.

Kevin struggles to his feet with a smile still on his face, blissfully unaware. He makes a pitiful attempt at a cartwheel and again finds himself lying in the grass with his limbs akimbo.

I begin to gasp for air as I realize I have been holding my breath during this whole disrespectful spectacle. I pull back once again behind the protective wall of my home. I am safe, but not really. My stomach, earlier fluttering with nervous butterflies, is now writhing with snakes. He is my neighbor, he is helpless, but I am too. Laughter cracks like a whip through my panic. I look back to safety one last time and step out into the front yard. One of the boys surrounding Kevin notices me, and the rest turn in suit.

*I pull back once again behind
the protective wall of my home.
I am safe, but not really.*

“Hey, Charlie, what are you doing today? Want to hang out?”

I freeze.

“Charlie? I said do you want to hang out with us.”

I stare down at my feet and turn back toward the yard.

“Maybe another time,” slips out of my mouth, and I go on to stammer, “I have chores to do.”

I walk calmly out of sight behind our barn-red house, but my resolve falters and I run down the gangway, into the house, through the kitchen, up the stairs, and then throw my weak person onto the bed. I bury myself in the covers and smash a pillow over my ears, hoping to block out the laughter ringing in my head.

Author's Biography

KHANH MAI

Khanh Mai spent her childhood in Lincoln, Nebraska, but has roots halfway around the world in Vietnam. She has come to live with fellow Pyros in Pasquerilla East Hall while double-majoring in Psychology and Science Pre-professional. She aspires to eventually become a family doctor or a radiation oncologist. Her ambitions stem from a will to serve others after hearing stories about the impoverished majority in Vietnam, which included her parents. Khanh used to live in Vietnam, along with her parents and brothers, until they moved to the United States when she was four. However, most of her extended family remain in Vietnam. The distance that she feels between herself and her family in Vietnam is reflected in the personal narrative "A Dropped Connection," where the family bond has been stretched to the point that technology is the only support it has.

A Dropped Connection

KHANH MAI



Regardless of the day's gloominess, melodious laughter floats into one's ear, through the heart, and out the other ear, as pearly whites illuminate the way to peace of mind. Synced minds cooperate and compromise altruistically by using a family telepathy that has formed from so many years of physical and mental contact. Remnants of the past, surprises of the present, and aspirations for the future flaunt themselves not only in everyday conversations, but in silent stories and seemingly arbitrary actions as well. Words of aged wisdom surface in casual and spontaneous chats to uplift self-esteem and outlook on life. Although these heart-to-hearts may boil into arguments sometimes, they always simmer down to forgiveness and understanding. My life meshes with my dad's, mom's, and brothers' lives through all life's struggles and triumphs, and exemplifies a journey shared and a bond that stretches but never tears.

However, when a cold, hard mouse palette takes the place of tender, gentle human touch, and a blurry digital screen replaces the distinct, clear-cut wrinkles and creases of a smiling face, even someone labeled as family seems unfamiliar. A distant voice, muffled by background noise and the fuzz of the microphone, speaks to me in a language considered foreign here. The few audible words seem to compliment my growth and then interrogate my academic, physical, social, and mental well-being. The voices then recall episodes of my childhood that I, myself, don't even have memory of. The blotches of graphics sporadically focus in and blur out unfamiliar faces from a house halfway around the world, a place I used to call home. These faces belong to people I am expected to love, cherish, adore, and even revere.

I feel the overbearing pressure and expectation of upholding a genuine, heartfelt connection. The family telepathy that is supposed to be based on years of affection, care, and direct contact has been severed by a growing void of fourteen years. A

barrier of distance and time deflects any attempts of reconnecting with the ones I used to share laughter, smiles, tears, and love with. They know me, my past, por-

*When the discomfort of feigned
philia becomes obvious,
my parents urge me on,
saying that my grandparents
miss me and want to be in my
life as they were before.*

tions of my present, and my visions of the future, but I only recognize them through my parents' acknowledgements of grandpa and grandma. This one-sided family love prompts my stuttering of simple Vietnamese phrases, the uneasy and unnatural curve on my face, and the constant glances at my parents for aid. When the discomfort of feigned *philia* becomes obvious, my parents urge me on, saying that my grandparents miss me and want to be in my life as they were before.

Acknowledging that I only have a limited amount of time to spend with them, I attempt the family bond that is now based on adjustable pixels and volume, until the connection drops and communication ceases once again.

Author's Biography

DANA BARLOCK

Dana Barlock, a native of New Jersey, is currently majoring in Biochemistry with a minor in Studio Art. After graduating from Notre Dame, she plans to attend graduate school and creatively blend the two disciplines in her future career. Her visual essay “Tinkering” addresses the ecological, economic, and health concerns associated with the increasingly prevalent technology of genetic engineering. It stands as a reminder that caution should be exercised in the use of technology with great potential when it has proven that its negative consequences can be severe, complex, and unpredictable. Dana found this visual approach to rhetoric to be a liberating experience as drawing allows an author to precisely craft an image from their imagination in a way that words alone cannot. Yet the venture also proved that every media has its weaknesses, and this visual was strengthened by the guiding words of a companion artist statement. Special thanks are given to her Writing and Rhetoric professor, Dr. Erin Dietel-McLaughlin, for her unwavering support for this artistic project.

Tinkering

DANA BARLOCK



Artist Statement

As a biochemistry major at the University of Notre Dame, I have been exposed to an extensive background about genetic modification. I find this technology to be promising for rapid scientific advancement, providing solutions to many complex problems that plague the human condition; however, I've been troubled that this powerful technology also has the potential to negatively impact our world. It is with this in mind that I created this drawing to persuade viewers of the importance of using this technology only with the strictest of responsibility, foresight, and an above all cautionary approach. In order to demonstrate the need for responsibility in the face of abundant and tangible freedom to tamper with the very elements of life, I have visually represented the main concerns associated with genetic engineering alongside some of its potential benefits. The intertwined character of the drawing is used to demonstrate the complex nature of the consequences of genetic modifica-

I find this technology to be promising for rapid scientific advancement, providing solutions to many complex problems that plague the human condition; however, I've been troubled that this powerful technology also has the potential to negatively impact our world.

tion, and ultimately provides viewers with an image of the importance of considering the potential downfalls of exercising complete freedom with the use of genetic modification technology.

All the parts are intricately woven together and emanating from the center so as to show the complex nature of consequences of genetic modification and the grand scheme of effects that can result from just one simple change of DNA at the molecular level. At the center I have drawn a DNA molecule coming out of a black hole and extending outwards and to the left. A hand reaching up from the bottom right corner and holding up a nucleotide (a fundamental building block in the code of

DNA) represents this initial act of modification at the molecular level. The DNA itself has nucleotides falling from it to represent the switching of these nucleotides with new specifically chosen ones, which will ultimately result in a change in the phenotype (physical trait/appearance) of the organism.

Stemming from the DNA are two corn stalks. These corn stalks are healthy and producing a very high crop yield of corn, which is exactly the goal of this genetic modification process in the case of corn ("Plants"). They are strategically positioned so as to appear to be placing an immense amount of weight on the nucleotides below. I have made a transformation of the nucleotides at the far left into blocks to show the resulting domino effect. When the last block is knocked over, so too will the milkweed on top of it be. The milkweed has a chrysalis hanging from it and

the butterflies are leaving this habitat, knowing that it will no longer be suitable for transformations from caterpillars to butterflies. To demonstrate this ecological domino effect even further, I have included a sparrow soaring high above in search of food. With the butterflies leaving, it loses its food supply and its population will certainly suffer as well. Ecosystems are highly dependent networks that suffer greatly from the smallest of changes, and this negative impact of genetic modification results. This section is to describe two very complex scientific phenomena whereby the milkweed plant becomes less abundant as a result of planting genetically modified corn in the cornfields it surrounds. The first instance involves the death of milkweed plants due to the excessive application of pesticides around plants genetically modified to withstand such chemicals (Pleasants and Oberhauser). The second damaging situation for the butterflies involves the butterflies being poisoned by toxic pollen from corn genetically modified to internally produce pesticide (University of Cornell). It ultimately describes the loss of a breeding habitat for monarch butterflies, resulting in an alteration of the ecological balance that previously existed.

The next part of the piece stems from the bottom of the DNA molecule as a corn-cob. The leaves that encase it are dripping with corn syrup, which is falling into the soda bottles below. This part of the piece is a commentary on the positive and negative results of genetic modification making corn syrup more abundantly used as a sugar substitute. Genetic modification of corn increases crop yield of corn, which lowers the price of corn syrup (a corn product) through supply and demand economics (Whelan). On the positive side, genetic modification of corn then allows sugary products to be produced more cheaply—a plus for corporations in America and the economy. But on the negative side, these sugary drinks and products are not healthy at all and are leading to unhealthy levels of sugar consumption in America (Roston). The abundance of such drinks in our country is demonstrated by the collection of bottles, which curve back toward the continent of North America.

The last part of the piece on the right side represents the positives and negatives of genetic modification in yet another sense. This time the focus is on a type of rice called “golden rice,” which was genetically engineered to contain Vitamin A. It was initially used to supply countries where there were widespread vitamin A deficiencies with that vital nutrient via a staple food in the diet of those citizens (Coghlan). Rice provided the perfect option as it was already widely consumed, easily transported across countries, and easy to prepare (just add water). This and the genetic modification of other foods have caused many to speculate that genetic modification could solve the world hunger problem because it allows us to produce higher crop yields and imbue foods with extra nutrients essential to survival (Pence). Thus, in my drawing I have connected Africa to the North America in order to create a sort of funnel of rice from America down to Africa to indicate the supply chain.

However, the drawback of this relationship between countries on these continents involves an economic dependence of Africa and poorer countries that do not have the technology to perform genetic modification on those that do (“Genetically Modified Foods...”). Thus they are connected also in the image of an hourglass as each grain of rice falls to demonstrate that over time Africa will become more and more economically dependent on first world countries. This is why there are dollar bills being pushed up from Africa by a strong wind up to the United States, where they are neatly collected. This economic dependence will not help the countries of Africa to develop and could result in a dangerous monopoly literally controlling the sustenance of Africa’s undernourished inhabitants.

Through these three parts of the drawing and components of my argument, the goal of the drawing is to show the pros and cons of genetic modification in order to demonstrate that freedom cannot be fully exercised with genetic modification, as there are important cons to be considered. Some potential downfalls may not even be possible to predict at this point, which follows the movement of the picture as emanating out from that initial change at the center toward the edges of the page where any number of consequences could continue to fill the page, our future. I have added a few stylistic effects to demonstrate this as well. Closer to the edges of the page there is less and less shading from the hole in the middle to show that these consequences are pulling farther from that initial point in time towards the future. Also, some elements towards the edges of the page become more sketchy in drawing technique (as opposed to the fine detail) in order to indicate an ever occurring and solidifying reality as the drawing expands out from the center and the future unfolds.

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Author's Biography

LAUREN JOSEPHSON

Hailing from Whitehall, Michigan, Lauren Josephson is pursuing a double major in Marketing and Film. Lauren's curiosity led her to a hard-hitting news story about the closing of the Notre Dame Bicycle Repair Shop in December 2011. A universally loved University service, the bike shop fell out of existence when their garage space was reallocated to the Design Department, with no provisions for new space. Lauren's video "Bring Back the ND Bike Shop" is a current events video exploring the need for students to own bicycles on campus and the deficiencies in service that arose with closing the Notre Dame Bicycle Repair Shop. The bike shop showed the University's commitment to green practices and sustainability, but without it, cycling as a clean form of transportation is a less viable option. Lauren would like to thank Jeff Bain-Conkin for all the help he provided throughout her writing course and for answering her endless questions, and Carl Josephson for bringing the bike shop issue to her attention and helping creatively with the video.

Bring Back the ND Bike Shop

LAUREN JOSEPHSON



Lauren Josephson's video "Bring Back the ND Bike Shop" can be accessed at the following link:

<http://www.youtube.com/watch?v=4UmKXIIia50&feature=youtu.be>

Author's Biography

MICHAEL MCLEAN

Michael McLean is from Elmhurst, Illinois, a suburb of Chicago, and is currently a resident of Knott Hall. He plays the saxophone in the Notre Dame Marching Band. An Eagle Scout, Michael has been a member of the Boy Scouts for nearly his whole life, and his coming-of-age narrative “Thump Thump” recounts one of his most ambitious camping experiences. The setting is Philmont Scout Ranch, a rugged mountain wilderness in New Mexico stretching over 130,000 acres. He considers the trip a rite of passage and a milestone on his path to self-discovery. His involvement with the Boy Scouts has led him to appreciate nature and pursue Environmental Engineering in an effort to help protect this fragile gift from God. Michael hopes to inspire his readers to see the beauty and power of nature, even when it turns against you. He wishes to thank Professor Angel Matos for his abiding passion and guidance while writing this essay.

Thump Thump

MICHAEL McLEAN



Michael McLean's audio essay "Thump Thump" can be accessed at the following link:

<http://writingrhetoric.nd.edu/essay-competitions/fresh-writing/thump-thump>

Author's Biography

GRACE MULHOLLAND

This piece was crafted by Grace Mulholland, a native New Yorker who lives on Long Island with her family. After being exposed to many visually stimulating presentations in her Multimedia Writing and Rhetoric class during the first semester of her freshman year, Grace decided to use Prezi as the medium for her own final visual essay. The topic she chose was “Advertising and Social Media,” one that she feels is extremely interesting and relevant, especially growing up amidst the technology and social media boom. The advertising aspect of the piece comes from Grace’s attraction to the business world, as she is currently enrolled in the Mendoza School of Business here at Notre Dame. She will be spending the summer leading up to her second year at Notre Dame interning on the floor of the New York Stock Exchange, hoping to gain knowledge and experience that she can apply to her future studies.

Advertising and Social Media

GRACE MULHOLLAND



Grace Mulholland's presentation "Advertising and Social Media" can be accessed at the following link:

<http://prezi.com/cm7zsyybwhkm/advertising-social-media/>



McPARTLIN
AWARD WINNERS

Author's Biography

XIAO XIAO

McPARTLIN AWARD—FIRST PLACE

Xiao Xiao is from Tianjin, China. She is pursuing a double major in Philosophy and Honors Mathematics. Xiao has been a metalhead for more than seven years and is a member of the Metal Club at ND. “Pride Reborn: Metal Music and Cultural Identity” is inspired, of course, by her enthusiasm for metal music. In contrast to the stereotype that metal music is possibly associated with nationalism, racism, and reckless adolescent behaviors, this essay aims to provide a positive perspective of evaluating metal music and its impact on the audience by examining folk metal, a subgenre of metal music. The author provides concrete examples of folk metal bands from Mainland China, Taiwan, Scandinavia, and Germany to demonstrate that folk metal rediscovers traditional cultures and thereby enriches culture diversity in our modern society. The classification of metal genres in this essay does not necessarily correspond to the tastes of metalheads, but rather serves the scholarly purpose of this essay.

Pride Reborn

Metal Music and Cultural Identity

XIAO XIAO



Since its birth in the 1970s, metal music has extended geographically across oceans and continents with an extraordinary pace from the United States and the United Kingdom to almost every corner of the world, travelling through both cyberspace and physical space. Already by mid-1997, 47,626 metal bands in Europe, North America, Asia and Australia were recorded in the *International Encyclopedia of Hard Rock and Heavy Metal* (Wallach, Berger, and Greene 5). According to Deena Weinstein, metal music is “more ubiquitous than McDonalds” (41). The popularity of metal music is deeply rooted in its association with cultures from all around the world. Folk metal, for example, is closely associated with folk cultures as suggested by its name; folk metal gathers material and resources from folk cultures and reciprocally rejuvenates corresponding folk cultures by spreading mythologies, legends, and melodies through the world-wide popularity of the songs. This paper discusses folk metal and focuses on a significant merit of metal music, namely the genre’s contribution to cultural diversity by bringing about the revival of traditional cultures and shaping modern cultural identity.

[F]olk metal gathers material and resources from folk cultures and reciprocally rejuvenates corresponding folk cultures by spreading mythologies, legends, and melodies through the world-wide popularity of the songs.

It is hard to precisely define each sub-genre of metal music; even metalheads themselves do not agree unanimously upon the nuances between genres since metal styles constantly evolve and transform themselves (Weinstein 41). Aaron P. Mulvany probably provides the clearest scholarly definition of folk metal when he describes it as “a sub-genre of heavy metal that incorporates instruments, melodies, and texts

commonly associated with folk life or folklore” (i). Folk metal is itself divided into sub-genres according to the geographical origins and cultures that bands represent. Viking metal (in Scandinavia) and medieval metal (in Germany) are probably the most prominent styles. Through examining the lyrics and musical composition of several bands from Mainland China, Taiwan, Northern Europe, and Germany this paper analyzes the ties these bands have to native cultures, and their further influence on modern transnational cultural identities.

Heavy metal music was introduced to China in 1988 when three ambitious young men set up the ground-breaking band Tang Dynasty (*tangchao*). The name itself evokes the band’s roots in classical Chinese culture. In “A Dream Back to Tang Dynasty,” the opening song of the band’s first album, the lyrics hark back to the Central Kingdom, as the country was called in the Kaiyuan period of the Tang Dynasty (618 AD–907 AD), during which imperial China was the commercial and cultural center of the world known to it. In the 20th century, after the Japanese Invasion, the Chinese Civil War and the Cultural Revolution, the Chinese people needed examples in their history to give them the hope of reviving a strong and glorious China, especially during the first decade after the band’s formation in 1988. Immediately before that, traditional Chinese culture underwent severe destruction during the Cultural Revolution, which took place in the 1960s and 70s. Schools were interrupted, books dating to hundreds of years ago were burned, and museums were robbed; accused of being *reminiscent of feudalism*, classical Chinese culture was completely refuted, and its value nullified. The Cultural Revolution left people with a void of classical literature and deep regret for destroying their cultural heritage. Rather than praising the imperial history, Tang Dynasty’s songs serve more to make the Chinese audience conscious of their broad and deep cultural heritage and echo the longings for cultural rejuvenation as well as giving people confidence to make the modern China great and glorious again.

Tang Dynasty’s lyrics are modeled after classical rhymed poetry, and the classical instruments (*qin*, *zheng*, and *xiao*) included in the songs’ compositions also evoke literati and genteel urban teahouse culture of ages past (Wong 65). The song portrays a time of economic prosperity in a vibrant literary society where “the land flourishes with treasure of heaven and earth” and “the fragrance of ink and paper melt into the air; ode and poetry fill the river” (A Dream Return to Tang Dynasty).¹ In the opening song for their second album, *Epic*, the band draws inspiration from the classical epic novel *The Romance of Three Kingdoms* and sings of heroes from times past. In addition, much of the imagery in Tang Dynasty’s lyrics finds its root in classic Chinese culture. For example, the imagery of the moon appears repeatedly in their

¹ All Chinese poems and lyrics in this paper are translated by Xiao Xiao.

songs 'Moon Dream,' 'A Dream Return to Tang Dynasty,' and 'Nine Fourth,' just to name a few. The moon is a common theme in classical rhymed poetry. Everyone in China knows the famous verse "I raise my head and see the moon; I lower my head and think of home" (Li Bai, "Silent Night Thoughts") and "As the bright moon rises above the sea, the whole world shares this moment." (Zhang Jiuling, "Nostalgic When Looking at the Moon") Thus, with its nostalgic symbolism and the idea of family reunion in classical poetry, the imagery of moon, when sung in a contemporary context, speaks of a longing to reunite with traditional Chinese culture.

Due to its close association with classical Chinese culture, Tang Dynasty has gained enduring popularity throughout Mainland China, Hong Kong, and Taiwan. According to Wong, another reason for the band's extraordinary popularity may reside in its shaping of modern Chinese masculinity. In classic Chinese culture, an ideal man possesses a balance of cultural refinement (*wen*) and martial ability (*wu*). All band members have tall, masculine physique and the powerful rhythm in their songs demonstrate strength and power of male character, which was suppressed by the asexual ethos of the Cultural Revolution. On the other hand, the usage of classical poetry and instruments remind people of *wen* qualities (Wong 64–65). Moreover, in the past century, Western invaders used to ridicule the Chinese as the "East-Asian patients," which is refuted by the strong physique of the band members. Therefore, the members of Tang Dynasty also serve as role models for the young generation of Chinese people by embodying classical ideals and denying foreign prejudices.

In the Greater Chinese Area, Tang Dynasty attracts its audience primarily by evoking classical culture. In Taiwan the band Chthonic casts its influence more through relating to contemporary issues while being more historically and politically conscious. Although the name "Chthonic" comes from Greek and means "earth deities" in Greek mythology, the band itself is closely associated with Taiwanese mythology and folklore. Similar to all folk metal bands, Chthonic uses folk instruments such as *erhu*, *koto*, and *shamisen*. The band is proud of the abundance of Taiwanese Austronesian mythology and Taoist folk beliefs incorporated in its lyrics (Chthonic Official Site). For example, their album *Mirror of Retribution* (2009) is framed after the Taiwanese legend of hell. Together the songs of the album tell a story about a Taiwanese teenager who uses witchcraft to break through the ten palaces of hell to get hold of the *Book of Life and Death*, which records each living person's future time of death. The teenager cancels the names of his friends so that they are no more doomed to die and can forever fight for the freedom of their country against Chinese colonization (Chthonic Official Site). The theme of fighting invasions echoes through Taiwanese history from the last two hundred years during which they struggled to maintain their own cultural identity, resisting

the successive rules of the Japanese government and the Chinese trustee government. In fact, the band's every album is an epic about an indigenous war-hero. The combination of giving a history lesson and displaying traditional culture arouses Cthonic's indigenous audience's national pride. Yet the band does not speak to a Taiwanese audience only; it has also achieved international popularity by satiating the curiosity of its foreign audiences in regional mythological themes.

The ideal of heroism and characteristic cultural elements are also evident in Chthonic's music videos. The beginning of their music video for the song 'Takao' depicts the Taiwanese ritual of calling the souls of deceased soldiers back home to reunite with their families. Women in the video have their faces tattooed in black, in accordance with Taiwanese tradition. "Billowing wind blows across the harbor, dignified men are going to the battle field... Wait for my victorious return, to continue our unfulfilled dream" (Chthonic, 'Takao' Music Video, 2011). Instead of fulfilling his promise, the soldier is never able to return to the living, as he dies on the battlefield for his home and country. But still, the promise of reuniting with his family is finally fulfilled when witches summon his soul back, and his lover, a girl at the time of his departure who now has turned into an old lady with wrinkles and grey hair, smiles with tears in her eyes. The song praises Taiwanese soldiers' braveness and willingness to sacrifice their lives in protecting their country; the image of an ideal man, brave, patriotic, and responsible, is fulfilled when the dead soldier in the music video completes his promise to return, although as a ghost. The music video thus combines mythology and history in an elegy which touches even foreign audiences.

In recent years Chthonic has gained worldwide fame and is currently on a tour around the world (Chthonic Official Site). It is noteworthy how the band has attracted international fame while having such strong ethnic characteristics. Many of their songs have two versions, one in English and one in Hokkien, the indigenous language spoken in Taiwan. However, some English versions still contain Hokkien verses, the melodious part in 'Takao' for instance. This special formulation enables audiences speaking other languages to appreciate the meaning of Cthonic's lyrics while getting some exposure to the beauty of the Hokkien language. Shieh Jhy-wey, minister of Taiwan's Government Information Office, views Chthonic's music and its world popularity as a kind of soft power through which the band informs the world about Taiwan and Taiwanese identity (Heydarpour 2007). Thus the band at home advocates the independence of Taiwan by evoking histories of the past century and casts its influence in the world as well by making the international audiences more aware of Taiwanese mythologies, traditions, and history.

Now let us turn our eyes to Scandinavia, where Viking metal prevails. Viking metal is a sub-genre of folk metal incorporating themes of paganism, Norse/Teutonic mythology, and the Viking Age in its lyrics. Viking metal bands sing about the time when Christianity had not yet entered Scandinavia, and they use traditional cultures to counteract Christianity and to express their longing for a stronger cultural ethos as opposed to a “slave morality.”² Viking metal lyrics are often evidence of strong acquaintance with Norse mythologies and linguistic masterfulness. For example, Enslaved, a Norwegian band, sometimes sings in Old Norse and Old Icelandic; the lyrics in their album *Vikingligr Veldi* are even directly taken from *Saga*, stories about Nordic histories based on oral traditions (Mulvany 34). Many of their songs, “Heimdallr” and “Loke” for example, tell the story of Nordic gods. Thus, the lyrics restate mythological stories and have serious cultural connotations. Similar to Tang Dynasty, Enslaved sing of heroes and evoke pride in their folk heritage, as when they sing in “Wotan,” “Die not lying sick, dastardly coward. Draw sword, fight with the war gods, Wotan!” Whoever is familiar with the myth of Walhall is immediately moved by the imagery of brave warriors and Wotan. A major god in Norse mythology, Wotan hosts the palace Walhall, to which warriors who die on the battle field go, to be trained in fighting for all days and to feast with Wotan. Finally, these warriors will fight to a second, eternal death alongside Wotan when the twilight of the gods comes (Ninck 180–184). Such invocation of mythological heroes has especially strong effects when people think about their ancestors who fought bravely for their lands.

While Viking metal is prevalent throughout Scandinavia and uses mythological imagery in its lyrics, its counterpart in Germany, medieval metal, is restricted to one country and relates to folk culture mainly through its musical composition. The most prominent medieval metal band is In Extremo. Its band members wear medieval costumes and play folk instruments such as bagpipes and hurdy-gurdy. They reproduce folk ballads in several ancient and modern languages and sometimes draw lyrics from literary masters such as Johann Wolfgang von Goethe and Francois Villon (Rock-Musiker), reflecting the literary proficiency of the band members and their audience. For example, In Extremo reproduced a new version of a medieval German song called “Palästinalied” in their album *Weckt die Toten!* Written in Middle High German, the song is a staple for music genres related to medieval music and has been reproduced by various modern bands. Furthermore, many of In Extremo’s songs are written in ancient languages such as Old High German and Old Gaelic to give an authentic feeling to the music (Rock-Musiker). Such

² This notion appears in Friedrich Nietzsche’s *Genealogy of Morality*. Nietzsche accuses Christianity of being a “slave Morality” grown out of weaker people’s hate toward nobler people. In response to the anti-Christian trend in the lyrics of some metal bands emerged “white metal,” a genre which praises and sometimes preaches Christian beliefs.

songs stimulate curiosity of traditional languages and cultures not only among the German audience but also among thousands of metalheads from all over the world.

Some other bands, however, are not satisfied with simply copying and reproducing medieval hand-me-downs. In the summer of 1998, six young people formed a band which later became known as Schandmaul, aspiring to create original songs combining medieval music styles with modern elements. Rock and roll instruments such as guitar and bass are equally important for their music as well as medieval and folk instruments (Schandmaul Official Site). The band's association with folk culture also received official recognition when it won the German Folk Music Sponsorship Award (Deutscher Folkförderpreis) in 2000 (Heymann). Schandmaul sings about witchcraft and past heroes, but such mythological themes are far less obvious in their folk identity than in their technique. Due to the large variety of ancient and modern languages employed in medieval metal, it is hard for the audience to immediately appreciate the stories told in the lyrics, whereas the usage of folk instruments and medieval melodies can be recognized at once.

Criticisms of folk metal mainly focus on the music's connection with nationalism and racism, especially in Scandinavia, where the overt emphasis on pre-Christian religions sometimes develops into anti-Semitism and hate towards Christian "weakness." For example, in one extreme case, a Norwegian metal musician sent a mail bomb to an Israeli metal band member (Kahn-Harris 202–203). This kind of discrimination is related to the prejudice against what is called "slave morality" and a longing for the pre-Christian age when Nordic people had allegedly a stronger

...[T]he united effort of metal fans has created a positive resistance against racial discrimination.

morality and mentality. Just as Nietzsche used to be misinterpreted and misused by Nazism, Viking metal is deliberately utilized by several bands to advocate their racist standpoints. In order to resist this racist propaganda in Viking metal, Viking metalheads have formed anti-Nazi groups, which have requested that Viking metal broadcasting channels,

such as Valhala Radio, put up disclaimers to clarify that neither the site nor Viking metal is linked to Nazism or racism (Metal Wikia). In this case, the united effort of metal fans has created a positive resistance against racial discrimination. While it is necessary to acknowledge that the national pride in folk metal has the potential of developing into racism or extreme nationalism, the music does not originate from the purpose of advocating any specific political or religious position and focuses on cultural traditions instead of race.

As a widespread sub-genre of metal music, folk metal sings praises to past heroes and legends with the accompaniment of folk instruments. Born in the 20th century, the

recent emergence of folk metal contrasts with the long history of the classical and native cultures it represents. As Wallach, Berger, and Greene claim, metal music “reject(s) conformity to...narrow fundamentalisms based on ethnicity, religion, or locality.” Standing against social conformity and putting emphasis on identity and distinguishing features of native cultures, folk metal embodies the inclusive spirit of metal music by celebrating different languages and folklores on the same stage. On one hand, folk metal serves as a means to “recollect your roots” (Mulvany) and to evoke lost or neglected cultures and traditions; on the other hand, the genre satiates the international audiences’ curiosity about exotic music and cultures. Folk metal thus revitalizes traditional cultures in a modern context, shapes the way that its fans perceive their position in the world, and enriches cultural diversity.

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Author's Biography

BEN CONRAD

McPARTLIN AWARD—SECOND PLACE

Ben Conrad is from Northbrook, Illinois, and proudly resides in Zahm House. He is pursuing a major in Finance along with Applied Mathematics and Statistics. As a devout fan of the sitcom *Seinfeld*, Ben aimed to tailor his final paper to focus on his favorite show. After reviewing episodes, he noticed that *Seinfeld* was unquestionably effective at portraying human anxieties—most notably those concerning homosexuality. His essay aspires to highlight the treatment of straight male anxieties regarding their own sexuality and masculinity in *Seinfeld* and other popular sitcoms. Ben would like to thank Professor Angel Matos, his Writing and Rhetoric instructor, for his unwavering support throughout the semester and his ability to cultivate Ben's best writing.

The Depiction of Straight Male Homophobia in Sitcoms

BEN CONRAD



A naïve eavesdropper, a clever and sinister best friend, and a young reporter trying to make a name for herself are the only ingredients needed to create the impression someone is gay. This is exactly what happened in the *Seinfeld* episode “The Outing” to both Jerry and George. *Seinfeld* was a sitcom airing on NBC during the late 80’s and throughout the 90’s.¹ Championed for being “the show about nothing,” its episodes rarely build upon each other as they tell the insignificant but familiar experiences of friends Jerry, George, Elaine, and Kramer. In “The Outing,” situated in their usual dinky diner, *Monk’s*, Elaine notices an eavesdropper one table over and intends to play a trick on her. Casually making a remark about Jerry and George’s imaginary gay relationship, Elaine gets the men to play along. However, unaware to Jerry, this eavesdropper turns out to be the same woman that is writing an article on Jerry for the New York University newspaper. After a wave of false publicity, Jerry and George spend the rest of the episode vehemently denying their alleged homosexuality, yet always following up with, “Not that there’s anything wrong with that,” as to not appear homophobic.

In addition to *Seinfeld*, the current NBC sitcom *The Office* deals with anxiety towards gay men as well. Since there is a gay character on the show, Oscar, who will be profiled in depth later, many situations arise in which the show’s characters depict their anxieties towards Oscar’s gayness. These two shows do not often devote entire episodes to this dilemma, but instead it is a recurring theme throughout their series that exposes homosexuality in an embedded light. *Seinfeld* and *The Office*

¹ Jerry in his show *Seinfeld* is a stand up comedian in New York City. He often is even-keeled and is never doing anything too outlandish. George, on the other hand, is Jerry’s neurotic best friend that often finds himself in situations desperately trying to seek approval or attempting to make up for his previous mistakes. Things rarely go his way as he often is unemployed or stuck in a dead-end job whereas Jerry is consistently employed and, for the most part, happy.

do not aim to promote widespread apprehension toward gay and lesbian people, but instead, they intend to capitalize on male anxieties about their own sexuality, masculinity, and gay men.

In “The Outing,” *Seinfeld* reveals the heterosexual male quandary—one does not want to be seen as gay but at the same time he does not wish to be perceived as homophobic. Both Jerry and George’s actions and emotions depict their dilemma. One staple of acting recurs throughout the aforementioned episode. When denying their alleged homosexuality, Jerry’s voice rises and passionately rejects the accusation then quickly follows up with a calm, collected, “Not that there’s anything wrong with that,” and a crossing wave of both hands. It is evident that Jerry wants nothing to do with the allegation that he is gay and almost disgustfully shakes his head. This type of nervousness emerges in men, as they yearn to both be in control of their situation and protect their masculinity. Jerry and George control neither, of course, which prompts them to ardently refute the accusations placed about them. Arlene Stein, a sociology professor at Rutgers University, states that the reason why so many men are homophobic is because it permits them to confirm their own masculinity and heterosexuality (602). In other words, some men, like Jerry and George, are so insecure about their virility that they use gayness to prove to themselves what they are not. Stein accurately labels Jerry and George’s apprehension because of their incessant need to affirm their masculinity.

Jerry and George must deny being homosexual in order to confirm to the audience and the reporter that they are indeed heterosexual. In an article for the *British Educational Research Journal*, Mark McCormack expresses that, “homophobia often serves as a form of heterosexual and masculine social currency” (338). What McCormack is trying to define about straight male culture is that the more homophobic a man is, the more masculine or heterosexual he is perceived to be. Fearing social judgment of being unaccepting, however, they aim to abolish this idea from the reporter’s mind. Stolidly delivering the infamous line, “Not that there’s anything wrong with that,” illustrates Jerry and George as serious about being tolerant of gays and lesbians. Their double-hand, crossing wave slash strikes down any opposing belief. However, a stark contradiction is evident between their passionate denial and composed reassurance. Jerry and George, like many men, are perplexed at the battle to balance their heterosexuality with their homophobia. Within their own insecurities lies the true cause of their fretfulness towards gay men.

George’s confusion with gay men as well as his own sexuality epitomize male anxiety towards these subjects and reveal his insecurities. In the episode “The Note,” George receives a massage, from a man, that is obviously portrayed to the audience as uncomfortable and unappealing for George. As George discusses the torturous

details with Jerry later in his apartment, he fearfully confesses that, "I think it moved." George's neuroticism consumes him so deeply that he believes a simple massage from a man could turn him gay. *Seinfeld* illustrates a suggestive and relevant idea from George's seeming overreaction. Some in-

secure heterosexual males relate with George and his trepidation towards gay men because they fear the unknown. This angst towards gay men was especially prevalent in the late 80's when the AIDS epidemic was being labeled as the "gay disease," and about 70% of Americans believed homosexuality was "always wrong" (McCormack and Anderson 24). Even to date, not much is known about the origins of homosexuality, so in the 90's when this episode was made, *Seinfeld* played very much to the uncertainty surrounding homosexuality at the time

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period. This prevalence of gay characters on television shows has increased sharply over the past few years however. In a study done by the Gay and Lesbian Alliance Against Defamation, the amount of recurring gay characters on television shows has risen from 1.1% to 4.4% in the last 5 years (Carter et al. 3).

Seinfeld, whether it intended to be or not, was way ahead of its time in confronting gay issues. Nevertheless, *Seinfeld* does not set out to cause gay panic but instead, through their portrayal of the neurotic character, George, strives to reveal male anxieties. Later in the episode, in an aim to redeem himself, George professes that he, "doesn't even want to sit next to a man on the airplane because our knees might touch." George, a stumpy, balding, shell of a man, obviously lacks all the qualities and aura of the stereotypical confident and womanizing heterosexual man. Stein states that, "heterosexual men are troubled by male homosexuality because it represents feminized masculinity" (602). Of course George does not want to be touched by another man because it threatens his own masculinity in the eyes of himself as well as other straight men. Because of his inability to take on the qualities of the stereotypical man, he aims to confirm his heterosexual desires by fearing gay men. So in order to satisfy his own questions about his sexuality he avoids male contact at all costs. *Seinfeld* appeals to the average male in this way, exposing their subconscious insecurities and presenting them humorously.

Contrary to George's neurotic attitudes towards gays, Jerry seems to ignore seemingly emasculating situations. In "The Boyfriend" episode, after working out at the gym and showering together, Kramer asks the question on most men's mind "Did you sneak a peek?" Showering naked together, and the suggestion that they looked at each other, are two apparently gay situations that the three of them must confront.

The first, showering naked together, can easily be argued that it was another instance in *Seinfeld* outwardly showing their heterosexual leanings. Showering communally has been expressed in male professional sports for decades as a sign of being comfortable and confident around other men. The second situation, Kramer asking if Jerry and George had “snuck a peak,” reveals Jerry’s protection of his masculinity. He resolutely denies that he “snuck a peak,” expressing he made a conscious effort not to look, purely not wanting certain information about George and Kramer’s bodies. His apathetic mindset towards other men’s bodies aim to prove to the audience Jerry is straight (Gantz 141). Jerry, confident about his sexuality around his best friends, is free from anxiety. However, Katherine Gantz disagrees with the notion that Jerry is straight, but instead claims *Seinfeld* is riddled with gay themes that question Jerry’s true sexuality (140).

Gantz suggests that Jerry is actually gay through analyzing several episodes and common themes. This would mean that Jerry does not have anxieties about gays like the stereotypical straight man, but instead he is faking it to cover up his true feelings, something this type of man would not do. There are several reasons why Gantz is incorrect on her assumption that it is really Jerry who is gay, leading some to believe that *Seinfeld* is not relating to men’s apprehension towards gays and their own sexuality. For example, she concludes that Jerry must be gay because of he is nervous to have lunch with baseball great Keith Hernandez and wants to make a good impression. Jerry has anxiety because he is meeting one of his heroes not because he wants to date him. Many of Gantz’s examples have been heavily over-analyzed. *Seinfeld*, after all, was created to make audiences laugh and find humor in everyday situations, not to be a show about gay men. Furthermore, many males have gay or effeminate tendencies or mannerisms at some points in their lives, but that does not necessarily mean they are gay. Additionally, Jerry has thirty-eight different girlfriends over the course of the series (Seinology 1). This blatant expression of heterosexuality confirms Jerry’s true sexuality; however he is still not invulnerable to nervousness about gays, his masculinity, and sexuality.

While *Seinfeld* was created over two decades ago, its accuracy in depicting the stereotypical straight male’s anxiety of gay men still resonates today on some of TV’s most popular shows. Even though progress has been made in the acceptance of gays, which has in turn limited a bit of the nervousness towards them, some apprehension still remains. However, there is a stark contradiction to how gays are portrayed in the gay based sitcoms of today, like *Will and Grace*² (1998–2006) or *The New Normal*³ (2012–present), as opposed to the sitcoms of the 90’s. A clear

² *Will and Grace* was a sitcom located in New York City and based on the relationship between Grace and her gay best friend Will. Other main characters include Karen, Grace’s bossy and straight-forward work assistant, and Jack, Will’s flamboyant gay best friend.

³ *The New Normal* is based on David and Bryan, a gay couple, that has just adopted a new baby and are dealing with the troubles of parenthood as well as being gay parents.

example of this contradiction between *Seinfeld's* portrayal and the present is Oscar from the popular NBC comedy *The Office*. In *Seinfeld*, once the rumor got out that Jerry is gay, everybody confirmed this false belief because he was thin, neat, and single. This is a common stereotype placed upon male homosexuals because they are portrayed as being effeminate. On the other hand, Oscar, who is actually gay, is a straight-edged, out of shape Mexican accountant that resembles little of the stereotypical gay man portrayed in the media. The fascinating and revolutionary thing about Oscar is that he is one of the first gay characters on television that does not let sexuality define him (Hilke). Until recently, Oscar did not come across as blatantly gay in contrast to characters like Jack and Bryan from *Will and Grace* and *The New Normal*, respectively. Those shows are reliant on the gay characters' flamboyance. It is because of Oscar's defiance of gay stereotypes, neatness in particular, that he is outed because he stays home for the office's spring cleaning day (Hilke).

While there are differences between *Seinfeld* and *The Office's* portrayal of gayness, there are even more similarities that depict the straight male's reactions to them. In *Seinfeld*, Jerry and George are concerned about others' opinions of their false portrayal of being gay as well as uncertain about their own sexuality. They know they are straight, but because they lack the qualities of the stereotypical self-assured and successful heterosexual man, they are a bit doubtful. Twenty years of education about the normality of gays and lesbians and waves of acceptance across the country have done little to alter the straight male's anxiety towards gays portrayed on network television. In *The Office*, Dwight learns of Oscar's sexuality in the episode "The Gay Witch Hunt" (a telling sign in its own accord), and immediately orders the fictional device "GAYDAR" from Jim. After testing everybody in the office, he finds nothing unusual until he is putting the GAYDAR away. He inadvertently swipes it over his belt buckle causing the converted metal detector to beep. A sign of shock and fear crawls across Dwight's face. Dwight, seen with several women throughout the show's history, is known to himself and the audience as straight. But the influence of even the slightest suggestion of homosexuality can cause the stereotypical straight male to question his own sexuality. Just as George questioned himself after getting a massage from a man, Dwight panics as a metal detector tells him he is gay. These fearful responses to otherwise insignificant events illustrates how well sitcoms like *Seinfeld* and *The Office* exploit straight male nervousness about confidence in their own sexuality.

Up to this point, nothing has been said about a *female's* response to gay men. Elaine, the main female character on *Seinfeld*, acts much differently around gay men than Jerry and George; instead of being fearful and wary of them she is actually attracted to a gay man. In the episode "The Beard," Elaine goes to see *Swan Lake* with a gay man because he fears his boss is homophobic and unaccepting of

his lifestyle. However, after spending the evening with him, she really starts to like him and ponders the possibility of getting him to “change teams” or convert to heterosexuality. This is a definitive contradiction to how Jerry and George reacted toward gay men. However according to Mary Kite and Bernard Whitley of Ball State University these differing attitudes among sexes are not uncommon. They have seen from their research that women tend to be more accepting of gay men and women than men are (336). Instead of being fearful, Elaine is actually infatuated with this gay man and seeks it as a challenge for herself and her sex as a whole to convert his sexuality. Elaine’s confidence in her sexuality to convert this man is starkly different than Jerry and George’s trepidation towards anything gay. This unease comes from the difference in men and women’s obedience to gender roles (Kite and Whitley 344). Where Jerry or George might be petrified of seeing the ballet *Swan Lake*, Elaine sees nothing wrong with going to it with a man because he seems sensitive. *Seinfeld* again in this way accurately represents stereotypical straight male anxiety towards gay men while at the same time plays to female confidence in deal-

ing and interacting with gay men, making *Seinfeld* applicable to both sexes.

Seinfeld and The Office demonstrate, through male anxieties about their own sexuality, masculinity, and gay men, stereotypical male behavior towards these ever-present conflicts.

Seinfeld and *The Office* demonstrate, through male anxieties about their own sexuality, masculinity, and gay men, stereotypical male behavior towards these ever-present conflicts. In “The Outing,” Jerry combats his angst about being seen as a gay man by the world and desire to be seen as accepting by his close friends and family. While in “The Note,” George’s neurotic nature overcomes his mind to

question his own sexuality. *Seinfeld* did such an accurate job depicting these emotions that almost two decades later *The Office* aimed to recreate this gay anxiety in their character Dwight. Additionally, Elaine’s enchantment with the gay man in “The Beard” further emphasized the conflicting opinions in gay men and sexual confidence differences between men and women. The overarching comedic intent of these two shows is too powerful to stimulate apprehension about gay men, but they do exploit male anxieties about their own sexuality, masculinity, and gay men. *Seinfeld* and *The Office* not only depict these stereotypical male concerns but display them in a comedic medium to which audiences can relate and understand.

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Author's Biography

KEITH LOH

McPARTLIN AWARD—THIRD PLACE

Keith Loh is a Science-Preprofessional major from Poughkeepsie, New York. Following his years at Notre Dame, he plans on taking a year to volunteer in South America before medical school. His essay “Fukushima Dai-ichi: A Context for Examining Nuclear Energy in the U.S.” was inspired by his parents and the interest in the energy discussion they gave to him. Keith hopes that his essay can in some small way dispel the negative connotations surrounding nuclear energy. He would like to thank his professor, Monika Grzesiak, for all of her guidance and the role that she played in his writing development. To all of the first-year students, Keith would like to impart the second major lesson learned during his own freshman year: Don't be afraid to join student groups and organizations. School is much more enjoyable with a compatible social group. Good luck and go Irish.

Fukushima Dai-ichi: A Context for Examining Nuclear Energy in the U.S.

KEITH LOH



On March 11, 2011, a magnitude 9.03 earthquake occurred approximately 43 miles from the eastern coast of Japan (“How does Fukushima”). The earthquake and ensuing tsunami wreaked havoc in Japan, leaving many casualties in their wake and many more without power or water. The natural disaster, as though it was not severe enough, was responsible for the largest nuclear disaster since Chernobyl in 1986; it caused level seven meltdowns in three of the six reactors at the Fukushima Dai-ichi nuclear power plant (“How does Fukushima differ”). The radiation released into the atmosphere was detected in trace amounts as far away as Montreal, Canada, and the Tokyo Electric Power Company estimated approximately 520 tons of highly radioactive water was washed back into the ocean, as well as 300,000 tons of relatively less radioactive water (MacKenzie).

The reverberations of the Fukushima Dai-ichi disaster are clearly visible in the reduction of nuclear programs around the world. When Japan announced its plan to phase out its use of nuclear power by the year 2040, it joined countries such as Germany and Switzerland in moving away from nuclear power following the disaster (Tabuchi and Eddy). Spain also plans to close its Garoña nuclear power plant by the summer of 2013, and Quebec announced the closure of its lone nuclear power plant on September 20, 2012 (World Nuclear News). The intimidating mystique of nuclear power was certainly fully realized in the Fukushima Disaster, but the resulting stream of phase-outs in the international community was unwarranted; furthermore, neither the United States nor any country of nuclear capability should neglect the vast environmental and economic benefits offered by nuclear power.

To understand the dangers associated with nuclear power, it is imperative to understand the basics of the reactions and reactors involved in the energy production process. Uranium-235 still carries many negative connotations following the Cold

War, but controlled nuclear fission showcases the benefits of this controversial element. On an atomic level, a neutron destabilizes the Uranium-235 atom, creating a U-236 atom, which spontaneously decays into two lighter elements Krypton and Barium, three neutrons, and a large amount of energy. The neutrons emitted in the reaction initiate the destabilization of more U-235 atoms and the process continues (Zum Dahl). In a nuclear power plant, this reaction is executed by an apparatus containing bundles of fuel rods composed of U-235 measuring approximately 4 meters in length ("Fuel Design Data"). The rods are submerged in heavy water, or water with extra neutrons, to prevent overheating once the reaction begins. The heavy, or deuterated, water helps moderate the fission reaction. Control rods, or rods composed of neutron deficient material, can be introduced or removed from the fuel rod bundles to prevent overheating or to shut down the reactor. The heat generated by nuclear fission vaporizes water into steam, which is in turn used to spin a turbine and generate electricity (Zum Dahl).

Nuclear power is by no means a perfect solution: the risk of disaster is present and the nuclear waste, while manageable at the moment, will require a deeper solution in years to come. The Chernobyl disaster occurred on April 26, 1986 and is the largest scale nuclear disaster to date; it is a good representation of the possible effect that a major nuclear accident can have. The number of lives taken by the disaster is still mythic; it is believed that the then-USSR obscured the true toll of the meltdown, although some scientists do adhere to the official 31 direct casualties of the initial explosion. Four years later, in 1990, at least 5,000 of the decontami-

Nuclear power is by no means a perfect solution: the risk of disaster is present and the nuclear waste, while manageable at the moment, will require a deeper solution in years to come.

nation workers had died, although not all of these deaths can be directly linked with the Chernobyl incident (Marples). Highly radioactive fallout was spread over the surrounding region during the accident, contaminating the area within 300 miles of Chernobyl although organisms as large as animals and plants were affected farther away (Marples). Although Chernobyl characterizes an intimidating scenario, many of the factors that contributed to the meltdown are avoidable today. A poorly designed, and even more poorly executed, safety test

was responsible. The operators of the plant disengaged protection systems during a turbine generator test, a costly mistake that exploited inherent flaws in the now antiquated reactor design. Today, the personnel that operates each nuclear plant is highly trained, safety regulations are much more stringent, and the new generations of reactors are much safer. The possible negative environmental effects are indeed

great, but they are not constant products. They are anomalies borne out of human error, or in the case of Fukushima Dai-ichi, exceptional circumstances.

The used, radioactive fuel rods also represent an environmental issue, but the issue is not as pressing as many critics may believe. The United States is the world's largest producer of nuclear energy, and yet all of the nuclear waste generated in the states to date accounts for the volume of a football field 5 yards deep (Shariff). This waste will eventually be moved to a single large repository, but currently the spent fuel rods are being stored deep underground in close proximity to their reactors.

Nuclear energy is a cleaner option than its Carbon-based alternatives. Oil, coal, and natural gas are all becoming less and less efficient as the world's supply of fossil fuels decreases, and each produces large quantities of pollution. Oil is the fuel of the modern world: it is used for gasoline, jet fuel, diesel, and also plastics, but the environment is paying a heavy price for the rampant consumption. Oil must first be refined to become a usable product, through a process that requires many toxic chemicals as well as large amounts of energy. Oil spills and the ecological damage they entail are topics that must also be included in the oil debate; the 2010 British Petroleum oil spill in the Gulf of Mexico is a prime example. The deep ecological impact of the 200 million gallons of crude oil dumped into the Gulf is still being redefined as time goes on. In April of 2012, two years after the spill, CBS News reported that Gulf fisherman and scientists found "disturbing numbers of mutated shrimp, crab and fish," as well as a great number of sick fish and low numbers of shrimp ("Sick, Deformed Fish Spotted"). Perhaps the greatest danger of our consumption of oil is the production of CO₂ and other pollutants through its transportation and combustion, or the production of greenhouse gases. These gases allow solar radiation to enter the Earth's atmosphere, but absorb a portion of the heat reflected back off the Earth's surface, trapping it within the atmosphere. The retention of greenhouse gases contributes to climate change, a negative side effect that is not associated with nuclear energy.

Coal is the major producer of U.S. power. It accounted for 42% of the country's electricity produced in 2011. In fact, 92% of all coal burned in the United States is used to generate electricity ("Annual Coal Report"). Coal has an extensive list of adverse effects that seems to be trumped by a short list of benefits; availability and job production are, for instance, two huge benefits of the use of coal, but the mining of coal is dangerous not only to the environment but also the humans who work with it. Working conditions in mines are hazardous at best, and many retirees suffer from ailments acquired from years working under those same conditions. Since coal accounts for such a large portion of United States power, millions upon millions of tons, 1.1 billion according to the 2011 Annual Coal Report, must be

transported, which requires expensive machinery and lots of fossil fuel (“Electric Power Monthly”). Finally, coal is similar to oil in its production of CO₂, but the combustion of coal also results in Mercury contamination, ozone pollution, and acid rain.

Natural gas seems the lesser evil in this energy discussion, and some experts support its development as a secondary to renewable energy. However, there are still some negative implications associated with natural gas. The combustion of natural gas leads to the production of methane, which has a greater adverse effect than CO₂ as a greenhouse gas. The processes of extraction of this fuel are also the source of some controversy. The exploration of possible sites and construction of natural gas rigs and pipelines are methods hotly contested by many who live or work within close proximity (“Fossil Fuels”).

There is certainly much to be said for the relative environmental benefits of nuclear power; however, in casual conversation the economics of nuclear energy is rarely discussed. Critics of nuclear energy often cite the supposedly impractical cost of nuclear plant construction and its relative financial disadvantages to options such as coal or oil. The current cost of a new nuclear power plant is high, but this estimated cost is inflated because no new nuclear plant has been constructed since 1977. Those who would invest in nuclear energy are wary of the controversial politics surrounding the subject as well as an inestimable length of regulation delays. If nuclear power plant production increases, lenders will be more confident in the process and financing costs will decrease. Nuclear energy will continue to become more relevant as the cost of fossil fuels increases. The advent of a “carbon tax” is also expected, in order to correct the market towards more renewable sources of power (Totty). Some of these arguments do not necessarily support nuclear energy: instead they erode support for fossil fuel based power. This leaves room for other renewable alternatives. Supporters of purely renewable sources of energy such as wind and solar may contend that one source or the other deserves a larger role in modern energy, but the dependence of these sources upon variable conditions (i.e. sunlight and wind) makes them imperfect replacements for fossil fuels. Instead, they must work in combination with nuclear energy to provide an environmentally and fiscally responsible solution to the energy problem. Nuclear energy is only a few changes away from fiscal viability.

Despite the generous amount of data that supports nuclear power, the international community has turned a cold shoulder on this necessary energy source. Unfortunately, the progress of the nuclear industry has been defined by its failures. Ioannis Kessides, a Lead Economist in the World Bank’s Development Research Group, included several surveys in her paper on the future of the nuclear industry

that describe the trends in public opinion before and after Fukushima Dai-ichi. Kessides reports that between 2005 and 2008, the percentage of Europeans favoring nuclear energy increased from 37 to 44 percent, while the share of those who opposed it decreased from 55 to 45 percent. In the United States, the statistics were even more striking. From 1983 to 2010, the percentage of those surveyed who were in favor of nuclear power increased from 49 to 74 percent. A separate survey conducted in May of 2011, after the Fukushima Dai-ichi disaster, found surprisingly different results: of the participants across 24 countries—including many European nations such as Germany, Italy, France, Belgium as well as others like the United States, China, and Saudi Arabia—62 percent of the total participants opposed nuclear power (Kessides). This data shows the psychological effect that a meltdown can cause. The phasing-out of nuclear programs around the world is representative only of the strong emotional reaction to the ominous “meltdown.” The statistic on US opinion spanning from 1983 to 2010 includes the Chernobyl disaster yet still shows the general population will slowly forgive the nuclear industry and look to benefit from its promised efficiency. The Fukushima Disaster is estimated to be only a fraction of the Chernobyl Disaster; the general public will certainly forgive and forget the recent disaster in Japan if they did for Chernobyl. Japan’s September 2012 announcement of the withdrawal of its nuclear reduction program marks the beginning of the shift back to a more moderate stance on the topic and underlines the fact that the reductions were rash initial reactions to the event.

Nuclear power has been a victim of its enigmatic appearances for decades; indeed it does entail several risks, but those have been exaggerated greatly and the benefits offered are promising. Laying aside all other concerns, nuclear energy represents the only carbon-free alternative that is ready to be employed on a large scale, terawatt production level. There is no perfect solution for an energy problem that is so often extended into economic, environmental, and security problems, but nuclear power represents an option that is competitive in all areas under debate. Furthermore the increasing consumption of energy around the world necessitates the use of nuclear energy; it would be irresponsible to ignore the environmental and possible economic benefits in lieu of satisfying statistically unsupported fears.

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SNITE MUSEUM
ESSAY COMPETITION
WINNERS

Author's Biography

MAURA COTTER

SNITE MUSEUM ESSAY COMPETITION—FIRST PLACE

Maura Cotter is studying English and Irish at Notre Dame and hopes to someday put her passion for reading to use as a publisher. From Buffalo, New York, she currently lives in Pasquerilla West Hall and couldn't be happier to be a Purple Weasel. Originally written for her Foundations of Theology class, her essay is a theological analysis of French painter Noël Coypel's *Resurrection of Christ*, comparing his rendering to the Resurrection accounts found in the Gospels. Maura would like to thank Professor Anne McGowan for encouraging the class to truly explore the Snite Museum and enter their essay contest. Maura would also like to once again thank the Snite Museum for selecting her work and for the honor of being published.

Darkness and Light in Noël Coypel's *the Resurrection of Christ*

MAURA COTTER



The *Resurrection of Christ*, by 18th century French painter Noël Coypel, depicts Jesus's glorious, but brief, return to life on earth; his victory over death in fulfillment of the Scriptures. Though Coypel seems to draw heavily on Matthew's Gospel account, he nevertheless takes creative liberties to present a vision of the Resurrection entirely unique to him. In this interpretation, Jesus makes a much grander entrance, emerging from dark clouds in a burst of light, eyes lifted towards the heavens. He holds aloft a triumphant white banner with a red cross in its center, looking every bit the part of "Christus Victor," the savior who, through his earthly death, has freed his people from the bonds of sin and Satan and has instead given them the gift of eternal life (Galli). Coypel's Jesus is a perfect divine liberator.

Interestingly enough, though it seems Christ is clearly meant to be the focal point of this piece, I was first drawn to Coypel's angel, who claims the center of the canvas. Unlike Jesus, the angel is not entirely bathed in light or wreathed in a halo, but he sits, calmly and simply on a rock, white cloak billowing and white wings furled behind him, glorious in his own right. In fact, the angel is just as he is described in Matthew: "...and behold, there was a great earthquake; for an angel of the Lord descended from heaven... rolled back the stone and sat upon it. His appearance was like lightning and his clothing was white as snow" (Matthew 28:2–3). The symbolic choice of white suggests purity, innocence, and, of course, holiness: all that an angel of God should represent. The angel's right arm extends outward, while his left points up to Jesus, so that he seems to be both heralding Christ's return and reinforcing the idea that Jesus is, in fact, above the angels. His serene gaze falls upon two women on the right side, presumably Mary Magdalene and another Mary, the mother of James and Joseph, who had come to visit the tomb of Jesus (Matthew 27:56). With wide eyes and mouths agape in perfect detail, the women look to their

risen Lord. Coypel impeccably captures their awe, mixed with some degree of shock and confusion. Though they may have understandably been afraid, Coypel shows them standing firm, reassured rather than terrified in the presence of the angel, bathed in the light emanating from Jesus himself.

In stark contrast, the three other figures on the ground are in darkness, both figuratively and literally, as Coypel employs chiaroscuro, pitting dark against light in striking juxtaposition, to split the painting in an almost perfect diagonal. The weapons and armor of the men reveal them to be Roman centurions, while their

Not only are the Romans in the darkest corner of the piece, but their actions and fear make clear that they are also in the dark in terms of understanding Jesus as the Messiah.

faces and gestures reflect blatant terror. One hastily attempts to flee, spear drawn, his back completely turned on Jesus's light, an action teeming with symbolism. The other two men cower—one hides himself under his shield, whereas the other lies in the dirt, holding a dagger between himself and Jesus. They seem to think that their mortal weapons will offer them some form of shelter from the supernatural event they witness. Not only are the Romans in the darkest corner of the piece, but their actions

and fear make clear that they are also *in the dark* in terms of understanding Jesus as the Messiah. These men have no grasp on Jesus's role on earth, or that he is, as John's Gospel proclaims, the "light of the World" (John 8:12). Coypel illustrates Jesus's statement, "Whoever follows me will not walk in darkness, but will have the light of life" (John 8:12).

Significantly, in presenting Jesus in the sky rather than focusing on his abandonment of the actual tomb, Coypel reminds us that Jesus's resurrection went far beyond a resuscitation of the body, harking to a basic tenet of our beliefs. We hold that Jesus returned on the third day, utterly transformed and one with God and the Holy Spirit in a newly whole way, a concept expressed best by Paul in his First Letter to the Corinthians: "What is sown is perishable, what is raised is imperishable. It is sown in dishonor, it is raised in glory. It is sown in weakness, it is raised in power. It is sown a physical body, it is raised a spiritual body. If there is a physical body, there is also a spiritual body" (15:42–50). Jesus's Resurrection, body and soul, serves as the ultimate proof that he is both God and man: only man could die to rid the world of sin, and only God could truly conquer death (Morris).

The more time I spent looking at this work, the more I noticed its extent of detail and careful arrangement. For example, I noticed a pattern of triangles cleverly crafted throughout the work, evocative of the Holy Trinity. Perhaps the most apparent: "the Romans and the women, in the left and right foreground, form the wide

base of a triangle that is topped by Jesus's heroically nude figure" (*Resurrection of Christ*). Jesus himself appears in an upside-down triangle of clouds. Also, by the diagonal established through the contrast of the light, right side to the darker left, the painting itself seems halved into two distinct triangles. Though I was initially drawn in by Coypel's triumphant "Christus Victor" and his angel in white, I have found that the image that ultimately resonates most with me is the women at the tomb site, standing their ground, even while the armed Roman soldiers desperately run. Like the women at the tomb site, we must all try to develop a faith powerful enough to dispel our fears and doubts; one that will allow us to look into the face of the frightening and the unknown with confidence that we walk in the light.

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Author's Biography

KEVIN KING

SNITE MUSEUM ESSAY COMPETITION—SECOND PLACE

Kevin King is from Cherry Hill, New Jersey. He is proud to be a Knight of Keenan Hall, and he is pursuing a major in Economics. Kevin hopes his interests in philosophy, politics, and economics will lead him to a life of public service. His essay, "Guarded Knowledge in the Medieval Era," was inspired by Umberto Eco's *The Name of the Rose* and by the collection of medieval art in the Snite Museum. In this essay, Kevin explores the medieval conception of knowledge by examining a 12th-century Spanish capital and the Italian monastery of Eco's novel. Kevin would like to thank Professor Eileen Botting for all of her help and guidance in his development as a writer.

Guarded Knowledge in the Medieval Era

KEVIN KING



Unknown Artist, Capital, 1100–1200, Snite Museum Collection.

Photograph Courtesy of Kevin King

A monk should surely love his books with humility, wishing their good and not the glory of his own curiosity; but what the temptation of adultery is for laymen and the yearning for riches is for secular ecclesiastics, the seduction of knowledge is for monks. (Eco 183)

Books have the remarkable ability to transcend the lives of their authors. Books pass on knowledge over time, from generation to generation. In Umberto Eco's novel, *The Name of the Rose*, we encounter the delicate relationship between the monks and their expansive library. Indeed, this dynamic of the infinite knowledge of books and the limited understanding of individuals is also present in the 12th century Spanish capital that is housed in the Snite Museum of Art. These two works illustrate for us the important subtleties that characterize the concept of guarded knowledge in medieval society. Namely, these works force us to consider the responsibilities we have to preserve this knowledge for future generations and the tendencies we have to control the knowledge of others by restricting access to books.

The capital depicts an angelic figure with broad, arching wings that wrap around the sides. The man in the middle is bent at the knees and hunched over. His face is long and wizened. His expression is stern, yet it evokes a feeling of exhaustion.

And in his hands, grasped firmly and held close to his side, is a book. It is easy to imagine that this angel has gone to great lengths to recover this book. The book is without doubt extremely important to him; it is quite literally near and dear to his heart.

And in his hands, grasped firmly and held close to his side, is a book. It is easy to imagine that this angel has gone to great lengths to recover this book. The book is without doubt extremely important to him; it is quite literally near and dear to his heart. Certainly, this book can be considered a symbol for medieval knowledge and our responsibility to guard it.

But what does it really mean to guard knowledge? The artist places this symbolic book locked in the arms of its guardian angel—nothing could come between the angel and the book. And in doing this, the artist limits the viewer's access to this book. For

example, the artist chose not to display an open text, in the hands of an angel with extended arms, reaching out to share with all. Likewise, the abbot of the monastery in *The Name of the Rose* chose to restrict access to the library rather than to open its doors to all who wish to explore it. What do these actions tell us about the medieval concept of knowledge? It seems there are only two likely explanations for these decisions. The first is that in order to guard knowledge, it is our responsibility to do everything we can to preserve and protect books for future generations. And the second is that guarding knowledge sometimes requires us to control the knowledge of others by limiting the availability of books.

This first interpretation, guarding knowledge as a preservation of truth for the future, entails that books must be protected. In this view, the angel holds the book so

close that nothing could harm it. This heavenly guardian prevents any evil or danger from interrupting the imparting of knowledge that comes only through books. Similarly, the abbot's decision to close off the library to the monks becomes a righteous policy that saves the knowledge that the library contains for those to come:

There, I said to myself, are the reasons for the silence and darkness that surround the library: it is the preserve of learning but can maintain this learning unsullied only if it prevents its reaching anyone at all, even the monks themselves. Learning is not like a coin, which remains whole even through the most infamous transactions; it is, rather, like a very handsome dress, which is worn out through use and ostentation. Is not a book like that, in fact? (Eco 185)

But this is not a complete interpretation of the medieval concept of guarded knowledge.

On the other hand, guarded knowledge is about control. Whether it is the angel who keeps the book to himself only or the abbot who locks up the library to keep the monks out, this guarding of knowledge is a way to control the knowledge of others. Sometimes, this type of control can be good, like when a parent prevents a child from reading certain books designed for adults. Surely, no child should be exposed to the gratuitous sex and violence that marks certain pieces of literature. But it is far too easy for this type of controlling knowledge to escape its reasonable bounds. It is far too possible for the angel, or the abbot, or any controller of knowledge to rule over others by restricting access for their own sake. This type of controlling is an attempt to rewrite history and cover up the past by presenting only the knowledge that is in accordance with authority, disregarding the rest.

But Eco asserts quite clearly that a library is “a receptacle of powers not to be ruled by a human mind” (Eco 286). Furthermore, he argues that a library is a “a treasure of secrets emanated by many minds, surviving the death of those who had produced them or been their conveyors” (Eco 286). This suggests that the medieval understanding of guarded knowledge is not so clear one way or the other.

Ultimately, the angel's clinging to the book and the monastery's policy of limiting access to the library can be interpreted in divergent ways. It all rests upon the intentions of the artist and the abbot. But the picture we gather from trying to decipher all the clues they have left is murky at best. Indeed, both the artwork and the literature of the Medieval Era delicately toe the line between protecting knowledge and controlling it. We are simply left to wonder where their true intentions lie. The only way to know for sure is to see inside, to explore the library, to open the book.

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Author's Biography

ELENA GACEK

SNITE MUSEUM ESSAY COMPETITION—THIRD PLACE

Elena Gacek is an Art History and International Economics double major from San Clemente, California. She first encountered the subject of Art History in high school, but only recently recognized her passion for the subject through her first-year courses and writing. The initial realization of this deep intellectual interest came not through her first college Art History class, but rather through her Honors Humanities Seminar, when a class assignment called for the analysis of an artwork from the Snite Museum's Medieval Collection. Her essay examines a stone capital decorated with religious motifs and makes sense of the carvings through comparison with Umberto Eco's historical novel *The Name of the Rose*. By unearthing connections across the very different media of medieval stone carvings and modern literature, her essay addresses the shape of Catholic identity through history and art.

Pillars of Faith

Intellect and Imagination in the Catholic Tradition

ELENA GACEK



Few people would disagree with the statement that the Catholic faith experience of today's world is noticeably different from that of Medieval Europe. Why? Perhaps due to the intellectual developments of the eighteenth century, the advent of the "Age of Reason"—instead of blindly accepting religious dogma, as in the Middle Ages, everything is now examined through, or at least alongside, the hypercritical lens of science, where incontrovertible "proof" is a necessary prerequisite to belief. However, as shown by Adso of Melk's contemplation of religious artwork in Umberto Eco's *The Name of the Rose*, the difference between then and now isn't the *presence* of rational thought, but rather its *application*. Today, reason is the consummate counterargument, a weapon to disprove and dismantle anything that contradicts the observations of our senses. On the contrary, during Adso's time, reason was treated as an interpretive device, a roadmap to understanding how the world could be—and was—something *more* than a simple collection of sensory perceptions. The Middle Ages founded "reason" upon tenets of religion; now, religion and reason are all but completely divorced. However, that doesn't mean that works of art conceived in the medieval worldview don't have the same power or meaning in modern times. Actually, by allowing intuitive sensation and rational contemplation to interact in our observation of medieval artworks, such as the French sandstone capital from the mid-twelfth century in the Sinite Museum, we are best able to conceptualize the difference between medieval and modern Catholic experience, and thus to deepen our understanding of both.

Today, reason is the consummate counterargument, a weapon to disprove and dismantle anything that contradicts the observations of our senses.

In the medieval Catholic tradition, fantastical carvings didn't seem contradictory to reason, but rather logical explanations of religious teachings. In Eco's *The Name of the Rose*, set in the early fourteenth century, a young Benedictine novice named Adso is very much moved by the carved stone entryway to a monastery church. A tympanum portraying the Second Coming of Christ, filled with turbulent motion and intertwining figures, is supported by several columns with similarly decorated capitals. Immediately upon viewing the carvings, Adso marvels at the fearsome awe of such figures, like Christ's "right [hand] uplifted in an attitude of blessing or – I could not tell – of admonition" (Eco 41). He then goes on to describe a multitude of hybridized creatures, animals and men and combinations thereof, which, "despite their formidable appearance, were creatures not of hell, but of heaven" (Eco 41-2). Beneath these strange yet holy images of God's creation, pillars displaying menacing lions and "other visions horrible to contemplate" (Eco 44) mystify Adso, forming an "enigmatic polyphony of sainted limbs and infernal sinews" (Eco 43). For the young monk, these visions represent stories and tales he has studied in the Scripture, and he concludes that their purpose is to serve as pictorial symbols for the involuntary, irrepressible emotions inspired by such stories. To Adso, the beasts in the carving are completely "reasonable" portrayals of the indomitable, overarching power of God, because they inspire the same type of mystifying fear and respect. Adso might have similar thoughts about the sandstone capital in the Snite's medieval collection. Here, a winged angel appears to brandish a sword at a many-legged, menacing demon attempting to overpower a mortal man. Without hesitation, Adso might say that such an image portrays the world as a constant battle between the forces of hell and heaven—that God and His angels are noble warriors battling for our salvation while we, impotent humans, can only pray that they continue to protect us from damnation. To Adso, this conclusion is as logical as those he draws about the monastery carvings—in art, the forces that truly act in our world are symbolized in a way such that they evoke the emotional responses we *should* have in response to forces evil and divine.

When the same stone capital is viewed in the light of modernity, a reaction as genuine and vibrant as Adso's occurs but rarely, if at all. Steeped in the ideals of science, the first instinct of a modern observer wouldn't be to seek religious inspiration or emotional stimulation in the capital, but instead to satiate objective curiosity—what is "going on" in the image, and why. The content of the capital is viewed as a mere story, and the capital itself as a relic from a Catholicism somehow different, far-removed from that of today, separated entirely from real life and relevancy. However, after discerning the subject matter of the pillar, if we are able for a moment to "turn off" our "reason," to interact with the work through emotion rather than logic, we can feel the fear, glory, power, terror, damnation, struggle,

uncertainty, salvation, and hope with which the dusty old stone is impregnated. In allowing ourselves to forget about our immediate cultural context, we become wrapped up in that of the capital, in the realm of medieval Catholicism.

From this standpoint, differences between the Catholic tradition of old and that of today can be *felt* rather than determined analytically—as children we learn about a loving, caring, gentle God, but the God we *feel* in this capital is passionate, violent against evil, terrifying in the sheer intensity of His greatness, omnipotent in ardent, burning glory. After internalizing these emotions, if we bring ourselves back to the modern, proof-based, “scientific” mentality, it is not with clouded judgment, but with greater clarity that we approach the historical, sociopolitical, and theological progression of the Western tradition and of Catholicism—the experience we gain from engaging with the artwork informs and enriches our interpretation of the past, and how it became the present.

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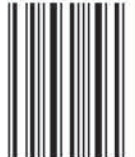


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